REPORT OF THE FEDERAL HORTICULTURAL BOARD

UNITED STATES DEPARTMENT OF AGRICULTURE,
FEDERAL HORTICULTURAL BOARD,
Washington, D. C., October 1, 1924.

SIR: I submit herewith an executive report covering the administration of the plant quarantine act for the fiscal year ended June 30, 1924.

Respectfully,

C. L. MARLATT,
Chairman of Board.

Hon. HENRY C. WALLACE,
Secretary of Agriculture.

INTRODUCTION

This review covers only the more important activities of the Federal Horticultural Board in the enforcement of the plant quarantine act. A much more detailed record of the work under this act, including the full text of all quarantines and regulations issued, together with explanatory press and other statements, is given in the Service and Regulatory Announcements of the board, published quarterly.

The growth of the work of the board has necessitated a reorganization of the various offices concerned in the enforcement of foreign plant quarantines.

E. R. Sasscer, formerly in charge of the Plant Quarantine Inspection Service, has been assigned to the position of entomologist and executive officer. Under this assignment he becomes the immediate representative of the board and will cooperate with the chairman and other members of the board in the general administration of the plant quarantine act. In addition, he will continue, as hitherto, the direction of the Mexican border work.

The plant quarantine inspection service, which is charged with the enforcement of plant quarantines at ports of entry, including customs post offices for parcel post importations of plant material, and with the inspection and safeguarding of all special permit material and of departmental and other importations, has been placed in charge of Lee A. Strong, formerly chief of the Bureau of Plant Quarantine of the State of California. Mr. Strong's long experience in quarantine work in California has peculiarly fitted him for this post.

The Section of Foreign Plant Quarantine Service remains, as hitherto, under the charge of R. Kent Beattie. This service is responsible for the issuance of permits and licenses concerned in the entry and subsequent utilization of restricted plants and plant products, enforces the required safeguards with respect to such utilization, and conducts all correspondence relative to these duties.

No changes have been made in the administration of the domestic plant quarantines. The board, under special appropriations, enforces the pink-bollworm quarantine and directs the control and eradication work with respect to this pest. The same is true of the date scale quarantine and eradication effort and of the potato wart control work. Quarantines on account of the white-pine blister rust and the black stem rust are being administered in cooperation with the Bureau of Plant Industry under special appropriations assigned to that bureau. Similarly, the quarantines on account of the European corn borer, gipsy moth, brown-tail moth, satin moth, Japanese beetle, Mediterranean fruit fly, and melon fly are being administered in cooperation with the Bureau of Entomology under special appropriations assigned to that bureau. Other minor domestic quarantines are being administered directly by the board.

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THE PINK BOLLWORM

STATUS OF ERADICATION EFFORT

No areas of new infestation by the pink bollworm have been determined during the last two years, and, except in the western districts of Texas and in New Mexico, no reinfestation has developed in any of the territory where the insect had been previously established. The more important areas originally infested in central and in eastern Texas and in Louisiana are now (October 1, 1924) apparently free from this pest and such freedom has continued for three or more years. The effort to eradicate the pink bollworm at least in the principal cotton areas where it obtained a foothold, appears therefore to have been successful. The accompanying table indicates for the principal districts in central and eastern Texas and in Louisiana the time that has elapsed since the last infestation was found and the amount of field scouting since that time given to each district without the uncovering of infestation.

Freedom of infestation in central and eastern Texas and in Louisiana

District	Time elapsed since last infestation was found		Number of man-days of scouting since last infestation was found
	Years	Months	
Hearne, Tex	7		2,430
Trinity Bay, Tex	3		2,981
Cameron, La	4	7	1,270
Shreveport, La	3	9	1,303
Marilee, Tex	2	10	1,464
Ennis, Tex	2	10	1,523

In western Texas and in New Mexico no continued effort has been made to eradicate the pink bollworm, for the reason that in the border areas in these States reinfestation is almost certain. In the cotton-growing districts in the upper Pecos Valley in these States there has been very effective climatic control—most of the larvæ not surviving the winters. The danger of infestation spreading from these western areas eastward is, however, being controlled by quarantine, by the installation of seed disinfection machines in all gins, and by the separation of these areas from central and eastern Texas. It is not believed that the risk of spread from these areas of infestation is greater than that from the infested areas in Mexico.

While the work of eradicating this pest is now in this very satisfactory condition, it would be too much to expect that there will be no recurrences of infestation in some of the areas where eradication has been undertaken, and it is also possible that new centers of infestation may at any time result from direct carriage from Mexico. The control of any such future outbreaks is, however, reasonably assured by what has already been accomplished, but as pointed out last year, there should be no relaxation in the survey and control work. Intensive field scouting must be continued and funds must be available for immediate clean-up and other repressive measures if the results which have been secured are to be retained.

INFESTATION IN WESTERN TEXAS

With respect to the crop of 1923, as the result of intensive scouting, continued into 1924, infestations were found in but three localities, all in western Texas. One infested field was determined in the El Paso district, 5 in the Pecos district, and 33 in the Big Bend of the Rio Grande. Except in the latter district, the number of specimens found was comparatively small, namely, 29 in the El Paso district and 14 in the Pecos district.

RISK OF SPREAD FROM THE WESTERN AREAS OF INFESTATION

While the measures of control already indicated have eliminated much of the risk of spread from the known infested areas in western Texas, it must be recognized that this risk remains as long as any such areas are infested. There has been no infestation in the Carlsbad area (Pecos Valley) in New Mexico now for two years, as determined by thoroughgoing scouting carried on each year, totaling upward of a thousand man-days, and the infestation in the Pecos areas in western Texas is almost negligible, due both to climatic control and to the measures which are being enforced. The infestation in the Big Bend district, however, is steadily growing, and the risk is further increased by the larger acreage devoted to cotton.

The continued occurrence of this pest in western Texas has necessitated the supplementing for that district of the quarantine measures hitherto enforced by provision for inspection of all automobile traffic leaving the Big Bend, El Paso, and other districts. Such inspection has resulted in the interception of a good deal of cotton, some of it containing living pink bollworms. Some of this

cotton has been in the form of cotton bolls or cotton plants taken away as souvenirs, but more important is the occasional carriage of small quantities of cottonseed—in one instance by a tourist en route from El Paso to California—and the frequent movement by laborers of cotton-picking sacks and of bedding and other articles which contain cotton with cottonseed. In cooperation with the States concerned, six traffic inspection stations are now in operation to safeguard such road movement.

PINK-BOLLWORM SCOUTING

As already indicated, the scouting to determine the presence of the pink bollworm throughout the areas which have shown infestation at any time and with respect to the whole Mexican border from El Paso eastward is work which must be continued actively and effectively if future establishments of this pest are to be caught up in time to result in the prevention of spread possibly beyond control by eradication. The cost of this work is a very small insurance to pay for the elimination of what is believed to be the most important of all cotton pests. During the year such scouting work was considerably increased, particularly throughout the more effective season for such work, from September 1 to March 1. This increase for the season of 1923 amounted to some 23 per cent over that of 1922, the total number of man-days devoted to such work being 9,588 as against 7,760. The actual value of this increase is, however, not fully indicated by these figures because of the fact that this work was, for 1923–24, more largely centered in the effective period indicated—in other words, the period when practically all the findings of infestation in former years have been made. On this basis there was an increase of effectiveness of man-day work of approximately 75 per cent over the year 1922–23.

As in previous years, inspections were continued in portions of Mexico contiguous to the United States, special attention being devoted to the territory from San Carlos, opposite Del Rio, to the mouth of the Rio Grande. Any infestation in this district would immediately jeopardize the plantings in Texas. No infestations were found even in the San Carlos region, where the insect was discovered several years ago. Its disappearance seems to be due in a considerable extent to the abandonment of cotton and to clean-up measures where cotton cultivation has continued.

CLEAN-UP OF COTTON FIELDS

Undoubtedly the cleaning of the fields has been a very important factor in eliminating the infestation in the six districts in Texas, Louisiana, and New Mexico where eradication seems to have been accomplished. As an extreme precautionary measure such clean-up work was continued during the winter of 1923–24 in the Ellis, Marilee, and Shreveport districts. Altogether 19,850 acres were cleaned at an average cost of $1.82 per acre.

Since the inauguration of the work in 1917, 72,892 acres of cotton land have been cleaned at a total cost of $432,168.48.

Under the cultural and labor conditions in the South no clean-up work can be made 100 per cent efficient, and the effectiveness of clean-up measures as conducted finds a possible explanation in the results of certain investigations made in Mexico, which indicate that moisture is very destructive to the hibernating larvæ. It was found that the greatest survival was in bolls on the plants. Bolls on the surface of the ground produced fewer insects, while bolls beneath the surface which were kept moist failed to develop any of the insects. The clean-up measures practiced in this country have disposed of practically all of the insects on the plants or on the surface of the ground, and those that made their way into the soil very probably failed to survive on account of the moist conditions brought about by the normally heavy winter rains.

COTTONSEED DISINFECTION

Under State regulations, cottonseed heat disinfection machines have been installed at all gins in the quarantined districts and the heating of the seed has become a part of the ginning process. These machines are provided with automatic recording devices, making it possible to readily detect and immediately remedy any failure to maintain the required temperature in the process of disinfection. During the year, 81 of these machines were in operation and approximately 75,000 tons of seed were disinfected.

The cost of treating seed has been found to range around 20 cents per ton. The treatment does not injure the vitality of the seed, increases its keeping qualities, and results in a somewhat better grade of oil.

REVISION OF REGULATIONS

As the work progressed, it has been possible to modify some of the re-

strictions of the quarantine, especially with reference to lint. On October 15, 1923, an amendment was promulgated under which the shipment of lint and linters grown in regulated areas to points in Canada was permitted. The amendment of January 17, 1924, makes provision for the interstate movement of seed cotton from one regulated area to another under such safeguards as might be required.

An additional amendment, effective April 5, 1924, releases certain counties in New Mexico from any restrictions as regards lint. These counties were originally placed under quarantine pending a thorough investigation to determine their freedom from the pink bollworm, and such freedom seemed to have been fully established. This amendment further provides for the movement of seed cotton from the eastern counties of New Mexico to points in Texas, provided it is ginned in establishments equipped with disinfecting machines. It also allows the interstate movement without permit of baled cotton lint and linters grown in regulated areas in which no infestation had been found for a period of two years or more, provided all gins operating in such areas are equipped with approved disinfecting machines and that all cottonseed passing through such gins is disinfected in a prescribed manner.

VACUUM FUMIGATION PLANT AT EL PASO

Authority was granted for the construction of a vacuum fumigating plant at El Paso for the disinfection of locally produced cotton. Such cotton, produced in regulated areas in Texas or New Mexico, when fumigated under the supervision of the department, will be allowed to move without restriction. It is believed that the erection and operation of the plant will reduce the danger connected with the shipment of lint from the infested territory and will remove important marketing difficulties.

RESEARCH IN MEXICO

The investigation of the pink bollworm in Mexico as a basis for control measures has been continued. Additional information has been obtained indicating that a method of controlling the insect by the use of poisons is within the range of possibilities. Poisons used for the boll weevil, however, are not effective. This research work has also taken into account the relative susceptibility of cotton of different strains and the effect that methods of tillage and irrigation have on the insect. The results of these investigations up to the end of last season are in the course of publication.

MEXICAN BORDER CONTROL

To prevent the further entry of this pest from Mexico, for several years all commercial and other Mexican border traffic into the United States has been safeguarded by inspection and disinfection. Briefly, this work consists in the inspection, certification, or, if necessary, fumigation of cars as a condition of entry into the United States. It has also included the examination of plant products, largely fruits and vegetables, entered under permit for local consumption, and footbridge or line inspection of baggage and personal effects, both being carried out in cooperation with the customs service.

During the period under review, 29,320 freight cars were inspected on the Mexican side of the border, 2,876 of which were contaminated with seed. As a condition of entry, 16,700 were fumigated, for which fees amounting to $67,724 were collected and turned into the Treasury as miscellaneous receipts.

At Del Rio, Tex., where there are no railroad facilities into Mexico, 19,410 vehicles of various descriptions were examined and safeguarded as to vehicle and contents.

In the fumigation of cars, etc., and freight considerable saving was effected by the installation of air compressors. By the use of these compressors it has been possible to reduce the dosage necessary to secure satisfactory results, with a consequent saving of approximately $10,000 annually in the cost of chemicals. Experiments have also been conducted with liquid hydrocyanic-acid gas and it now appears that this liquid can be used advantageously in connection with the border fumigation work.

The inspection of baggage and personal effects in cooperation with the customs service has resulted in a number of important interceptions, including the Mexican fruit fly in several hosts, two injurious avocado weevils, the pink bollworm in cottonseed, and a number of others of less importance. In this inspection large quantities of contraband fruits, plants, etc., have been taken from passengers and pedestrians.

To expedite the movement of cotton samples originating in Mexico and forwarded through the mails, arrangements have been made with the U. S. Postal Service to divert all samples arriving at ports on the border to Laredo for fumigation before they are permitted to go to the consignee, and for such disinfection a special fumigation apparatus has been provided by the board.

EUROPEAN CORN-BORER QUARANTINE (DOMESTIC)

The quarantine (No. 43) on account of the European corn borer was revised effective May 1, 1924. This revision adds the State of Vermont for the purpose of including two infested townships in that State, and incorporates additional territory determined as infested in the States of Maine, Massachusetts, and Ohio. Upon the recommendation of experts of the Bureau of Entomology, spinach was eliminated from the articles enumerated as brought under the regulations, due to the fact that it is shipped for the most part north and east of Boston, thus doing away with what is believed to be unnecessary inspection.

This quarantine is enforced in cooperation with the Bureau of Entomology of the department, which, under a special appropriation, administers the quarantine, and also in cooperation with the States concerned under supporting State quarantines. The purpose of this quarantine is to prevent long distance spread through the movement of such carrying products as corn and other crops in which the insect breeds. In the main such control has been successful during the year and the spread from the important areas now infested has been limited to such local spread as is occasioned by the natural flight and movement of the insect itself. The important exceptions to such local spread are certain outbreaks along the southern shore of Rhode Island and Connecticut, including Nantucket and Marthas Vineyard, Mass., and in the southwesterly end of Long Island in the Borough of Brooklyn. Some of these points may have been due merely to natural spread, or to movement of products, from older near-by infestations, some of them of long standing, in Rhode Island and Massachusetts. Others, however, seem to have resulted from the movement through Long Island Sound of broomcorn from New York to Boston for disinfection, the necessity for which was fully gone into in my report of last year. The infestation in Brooklyn would seem undoubtedly to have resulted from such foreign broomcorn.

The points of infestation near New London, Conn., and in the outskirts of Brooklyn have been cleaned up as thoroughly as possible, either by State forces as to Connecticut or by Federal forces in cooperation with State forces as to the Brooklyn area and it is believed that such clean-up has been sufficient to very largely eliminate the risk of spread from these areas.

It is fully admitted that the natural spread of the corn borer must continue gradually, and, in spite of all efforts, from time to time through movement of infested products by longer jumps. It is still believed, however, that quarantine measures safeguarding such movement of products are warranted as a valid insurance against the losses which this insect may occasion should these efforts be discontinued, with the resulting rapid spread which would certainly follow westward and southward into the important truck regions and into the main corn belt. A fuller statement with regard to the work for the control of this pest will be found in the report of the Bureau of Entomology.

EUROPEAN CORN-BORER QUARANTINE (FOREIGN)

This quarantine (No. 41) applies not only to the European corn borer, but also to other dangerous insects as well as plant diseases known to affect corn in various foreign countries and not now widely prevalent or distributed within the United States. It covers, in addition to ordinary Indian corn and broomcorn, many other plants more or less closely related to corn and subject to the same pests and diseases. The regulations under this quarantine release certain articles from restriction, including sorghum hay from Canada and clean shelled or threshed grain from any country except as to certain grains or seeds restricted by other quarantines. They also provide, under restrictions and safeguards, for the entry of broomcorn for manufacturing purposes.

During the year the regulations with respect to the entry of broomcorn have been twice amended to still further safeguard the entry of this product. The first amendment, effective September 1, 1923, provided for the entry of broomcorn at Boston throughout the year and limited its entry at New York to the period November 1 to February 28, inclusive. It further prohibited the bringing of broomcorn to New York for transhipment to Boston or other ports during the remainder of the year. The second amendment further limited the period during which broomcorn may enter New York from November 1 to January 31, inclusive. Provision was made also for more adequate baling of broomcorn to prevent leakage and limited the sterilization period to 30 days.

These amendments were necessitated on account of the frequent ar-

rival of foreign broomcorn showing heavy injury by the European corn borer. In some instances the infestation closely approached 100 per cent of the stalks. Permittees were requested to immediately notify foreign exporters of the situation and to advise them that continued shipment of heavily infested material would jeopardize the continuance of authorization of broomcorn importations.

To safeguard such entry, all imported broomcorn is given steam sterilization in vacuum retorts under conditions which have been demonstrated to thoroughly cook and kill any contained insect or other life. On account of the fact that the vicinity of Boston has been for many years infested with the European corn borer, the department seems to be warranted in permitting the entry of foreign broomcorn throughout the year at that port. The limitation of entry at New York to the three designated months is for the purpose of having all such entry and required disinfection fully completed prior to any possibility of activity on the part of any borers carried in the imported corn. In view of the general infestation of foreign broomcorn with this pest and the possibility of carriage also of other pests, it would seem to be highly desirable to so develop broomcorn culture in this country as to make further importations of foreign broomcorn unnecessary.

JAPANESE-BEETLE QUARANTINE

The continued spread of the Japanese beetle, involving considerable areas in New Jersey, and in Pennsylvania to the north and west of Philadelphia, made it necessary to extend the quarantine (No. 48) promulgated on account of this pest. As revised, the State of Delaware is included in the general quarantined area which had previously comprised only the States of New Jersey and Pennsylvania. Such extension was necessary in order to give an adequate safety zone beyond the known spread, which had already reached the border of Delaware. As hitherto, this quarantine is being enforced in the States concerned only as to the areas actually designated as infested or, as to safety zones, immediately threatened with infestation, and does not affect movement of products elsewhere in the State, conditioned, however, on cooperation under State quarantine to prevent movement from areas designated as above to other portions of the State. In the case of Delaware, only one township is now involved, and that merely as a portion of the safety zone.[1]

In connection with the revision of the quarantine certain changes were made in the regulations, having to do with definitions and particularly with relation to the control of the movement of farm products, nursery and ornamental stock, and sand, soil, earth, peat, compost, and manure.

As in the case of the European corn borer, the purpose of this quarantine is to prevent long-distance spread of the beetle in connection with the movement of various farm and truck crops and of fruits and florist and ornamental stock; in other words, to hold its spread as closely as possible to the unpreventable local movement of the insect itself. Its natural spread by flight from 5 to 10 miles a year is beyond control other than by such measures as may reduce the abundance of the pest itself in the invaded areas either by artificial means or by the agency of natural enemies. The continuation of such quarantine measures and the assumption of the costs involved will be warranted only so long as the actual spread of the pest is materially delayed by the restrictions on movement which it is practicable to enforce. Undoubtedly, except for such restrictions as have been enforced for the last several years, this pest would now be widely distributed throughout the United States. The control of movement of carrying products is rendered very difficult in the metropolitan area now invaded by this pest by reason of the great volume of farm products moved by truck and automobile. It is, therefore, necessary not only to control the movement by rail and other common carriers, but also to police the main roadways for the purpose of enforcing the provisions of the quarantine with respect to truck and other road traffic. In all of this quarantine work the States concerned are cooperating.

As has been previously pointed out, this pest is recognized as one of the worst of the later introductions of foreign crop enemies, particularly on account of the wide range of crops and ornamental plants which it attacks either in the grub stage or as an adult beetle. The main hope for the future is in natural enemies or possibly by methods of artificial control which will prove more effective than any which have so far been devised.

[1] Subsequent to July 1, 1924, an infestation was determined in this township.

GIPSY MOTH AND BROWN-TAIL MOTH QUARANTINE

The amendment of August 21, 1923, of the domestic quarantine on account of the gipsy moth and brown-tail moth resulting from the conference with nurserymen and others in interest held in the Statehouse, Boston, Mass., August 17, 1923, is discussed in the annual report for that year (see pp. 7 and 8).

This quarantine was again revised June 12, 1924, effective July 1, to bring under control the additional areas reached by the gipsy and brown-tail moths as determined by the scouting in the fall, winter, and spring of 1923–24. The spread of the gipsy moth into western and northwestern Vermont made it necessary to include in what is designated as the lightly infested area all of the remaining portions of that State. The quarantine line already extended to the western border of Massachusetts. In western and southern Connecticut it was necessary to include some additional towns in the lightly infested area. The only change in the brown-tail moth area was the inclusion of Mount Desert Island, Me.

The regulations of the quarantine were amended providing for certain additional requirements relating to inspection and certification of nursery stock, substantially, however, as agreed upon at the Boston conference of August 17, 1923, but somewhat added to and modified by a supplemental conference held in Washington April 22, 1924. The important new factor is that certification of Christmas trees and greens for interstate movement under the quarantine will hereafter be limited to such products originating in the area designated as lightly infested.

At a conference of April 30, 1924, it was determined to establish and maintain, as the main feature in the future effort to prevent further spread westward of the gipsy moth, a barrier zone some 25 miles in width along the present western border of spread, i. e., between New England and New York. Within and beyond this zone an effort will be made to thoroughly clean up and eradicate any infestations or colonies. This zone plan was first discussed at an interstate conference which was held in Albany November 16, 1922. Such control plan is now deemed feasible, inasmuch as in the westward movement of this pest it has reached a region where the natural barriers and the character of the country give reasonable hope of keeping such zone free from permanent infestation. The urgency for the adoption of the barrier-zone plan at this time is that should the gipsy moth get beyond this border strip into the Adirondack and Catskill regions of New York, its control in these districts would be extremely difficult, if not impossible, and its more or less rapid spread westward could probably not be prevented.

As noted in former reports, no quarantine has been promulgated to cover the areas of infestation by the gipsy moth in New Jersey and New York, since the eradication measures and other controls adopted by these States in cooperation with and under the supervision of experts of the Bureau of Entomology were deemed adequate. The area infested by this moth in New Jersey has been reduced one-half since the work was undertaken in that State, and the few points on the eastern border of New York have been, it is believed, thoroughly cleaned up.

Owing to the presence of the gipsy moth in northern Vermont near the Canadian border and the fact that it will undoubtedly invade the Dominion and from there spread to other parts of the United States, a foreign quarantine (No. 57) was promulgated effective July 1, 1924, which regulates the movement of Christmas trees, arbor vitæ, and decorative greens from certain portions of the Province of Quebec.[2]

DATE-SCALE ERADICATION

The Parlatoria date-scale eradication work has been continued during the year with marked success along the lines indicated in the last annual report. All infested trees, as promptly as discovered, are now being cleaned up by the drastic process of burning to the bud. It will, however, be necessary to continue the tree-to-tree investigation for a series of years and to give the same drastic control treatment to any infested trees, to be assured of the ultimate eradication of this pest. As has been previously pointed out, the future of the date industry in this country seems to be conditioned on such eradication.

In connection with this control work, and in cooperation with the Bureau of Entomology, important biological studies have been made of both the Parlatoria and the Phoenicococcus or red

[2] Since this quarantine was promulgated the Canadian Department of Agriculture has reported the finding of gipsy-moth infestation in southern Quebec within the area covered by quarantine 57.

scale, the latter an important date pest, but very much less destructive than the Parlatoria. The experiments with the latter pest indicate possibilities also of ultimate eradication.

POTATO WART

Local surveys have been maintained in the infested areas in Pennsylvania, West Virginia, and Maryland, and they have occasionally brought to light new infected gardens, but all of these have been within the present quarantine limits, i. e., no new infections outside the quarantined area have been reported. The three States named are enforcing the use of immune varieties as the principal control measure, and are maintaining effective quarantines against the dissemination of the disease.

WHITE-PINE BLISTER RUST

The two domestic quarantines which have for their purpose the control of the white-pine blister rust have been enforced by the Bureau of Plant Industry in cooperation with the board, State officers, common carriers, and nurserymen. The known distribution in the eastern States of this disease is unchanged and in western United States it is apparently still confined to the State of Washington.

Much time has been devoted to railroad-terminal and post-office inspection for the purpose of intercepting unlawful shipments of white-pine blister-rust host plants. During the spring of 1924, 28 violators were detected, as compared with 188 for the similar period in 1921. This reduction in the infractions of the quarantines is the result of systematic enforcement of penalties and the excellent support and cooperation given by the nurserymen in making them effective.

The protection given the extensive forests of western white and sugar pine by the quarantines is further supplemented by the general eradication of the European black currant (*Ribes nigrum*) (often referred to as the cultivated black currant) by the Bureau of Plant Industry in cooperation with important pine-producing States. This plant is a distinct menace to the white-pine timber supply of this country, since it is an active agent in the long-distance spread and establishment of the white-pine blister rust. On this account it has been outlawed in certain States, and this department is on record as opposing its cultivation within the natural range of the five-needled pine.

BLACK STEM RUST OF WHEAT

The campaign, under quarantine No. 38, to eradicate the common barberry for the purpose of controlling epidemics of black stem rust of wheat, which was undertaken in 1918 by the Bureau of Plant Industry in cooperation with State officials and others of the northern central grain-growing States, has been continued substantially along the lines indicated in the last annual report. During the year preliminary surveys were made in an area equivalent to 183 counties; and subsequent surveys, to determine whether bushes previously located had been removed, were made in 271 counties. Since 1918, approximately 668 counties have been surveyed and some 10,000,000 bushes, seedlings, and sprouting plants have been located, most of which have been, or will shortly be, destroyed. The eradication of barberries is well under way, being about two-thirds completed.

IMPETUS GIVEN TO AMERICAN HORTICULTURE BY QUARANTINE 37

While quarantine 37 has the sole purpose of reducing to the utmost the risk of introducing dangerous plant pests with plant importations, it is true that it has given an enormous impetus to American horticulture and floriculture. Some 2,000 establishments in 44 of the 48 States are now engaged in the propagation of ornamental and other plants formerly imported, and this new development already represents many millions of invested capital. The table given on page 20 shows for the 5-year period of the quarantine—1919 to 1924—the distribution by States of the special-permit material, the entry of which is provided for under the quarantine for propagation or seed stock. It is very gratifying that this large development has followed the quarantine rather than the injury to the horticulture and floriculture of this country, which was widely predicted at the outset. Along with this new development, based on imported stock, has come an enormous increase in the production of ornamentals in this country, based on propagating materials available here, and this latter increase probably exceeds many times that based on imported stock. The bearing of all this development on the purpose of quarantine 37 is that it lessens the necessity for future importations and correspondingly reduces the risk of bringing in new pests. The present status of this development,

based on imported material only, is indicated in the following analysis submitted by R. Kent Beattie, pathologist of the board, in charge of foreign plant quarantines, in which office falls the enforcement of quarantine 37:

Plant material imported during the last 5 years by special permit under regulation 14 of quarantine 37 is the basis of plant propagation enterprises in 44 of the 48 States.

During the 5 years of the quarantine the production in America of varieties of gladiolus, dahlia, and rhizomatous iris is practically stabilized. Of many gladiolus varieties there is almost an oversupply. Dahlia production at least equals and perhaps exceeds that in foreign countries. Rhizomatous iris covers hundreds of acres.

Outdoor rose production is on its feet. The rapidity with which a few imported roses may be multiplied into many plants and the use of the large quantity of available domestic propagating stock has expanded rose growing to an enormous acreage.

Over a quarter of a million imported peonies are being propagated. Since peony stocks are somewhat slow in their development and the commercial demand is on the increase, there are some varieties not yet sufficiently available.

While bulbous iris production is still in the developmental stage, about 10,000,000 imported bulbs are in the hands of 161 different growers in 31 States. Unfavorable weather conditions this year have interfered somewhat with the progress of this industry.

Azalea and rhododendron production is making headway, but the commercial demand is by no means satisfied. Several growers can count their home-produced azaleas by the hundred thousands.

Many acres are now devoted to the raising of ornamental shrubs and trees. The production of the more difficult kinds is coming on slowly. American nurserymen are learning to plan for the future, to hold mother stock plants, to grow their own scions, to collect their own seeds, and to locate in advance American supplies. As a whole, the business is expanding rapidly.

Of all classes of plants the development of an American orchid supply is the slowest. This is due to the cost of the parent orchid plants, the expense of maintaining orchid houses, the difficulty of germinating orchid seed, the long time necessary for the growth of an orchid plant, and the reluctance of many orchid growers to give up dependence upon wild orchids; but the last two years have seen rapid development. More than 60 American growers are multiplying imported plants by back-bulb production and at least 6 have successfully undertaken seedling production on an extended scale. These now have about 400,000 seedlings 18 months or more old and perhaps 10,000 to 12,000 of these will bloom this year. The development in the United States of Knudson's sugar culture method of germinating orchid seeds apparently will give a great impetus to the industry. Orchid seeds are also being germinated on a commercial scale in the United States by planting near chopped orchid roots and by growing in pure culture with the orchid fungus.

COTTON AND COTTON-PRODUCTS QUARANTINE

Under the order issued April 27, 1915, all raw cotton in any form, including also cotton wrappings, was brought under inspection and certification and safeguarding as a condition of entry. This was for the purpose of excluding the pink bollworm of cotton and other cotton pests. The regulations governing such inspection and certification have been amended several times. The last of these amendments was issued under date of April 30, 1924, and had for its object the release from the requirement of disinfection of certain classes of cotton and cotton products which have been so manufactured or processed as to have eliminated all insect life, irrespective of the nature of the wrappings covering such products. After several years' experience, the board believes the requirement of disinfection, merely on account of the use as wrappings for such products which may have been previously employed as coverings for cotton lint, etc., to be unnecessary and this requirement was therefore withdrawn. It is now believed that any possible risk which may remain can be safeguarded in the course of inspection, as a condition of entry, given by the agents of the board to the wrappings of all such materials.

The statistics of entry of cotton lint and other restricted articles under the provisions of the order referred to have been given from year to year. The total number of bales of lint entered during the fiscal year 1923–24 is 408,868, being the third largest yearly entry of cotton lint since the order was promulgated. For comparative purposes, there is listed below the importations for the past nine years in the order of the quantities imported:

Year	Bales	Year	Bales
1919–20	595,765	1920–21	221,303
1922–23	481,396	1916–17	216,337
1923–24	408,868	1917–18	195,723
1921–22	386,303	1918–19	179,537
1915–16	316,260		

If to the entry of cotton lint during the fiscal year 1924 is added the importations of cotton waste and bagging, a total of 562,520 bales is indicated—the third largest annual combined entry of these commodities since they were placed under restriction. The maximum figure of such importations was in the year 1922–23, when the bale imports for these three commodities reached the total of 825,438.

All bales of cotton and cotton products requiring disinfection as a condition of entry were fumigated at the authorized entry ports of Boston, New York, San Francisco, Seattle, and Portland, Oreg., in disinfection plants under private ownership but operated under the supervision of Federal inspectors. For tables indicating respectively the importations of cotton, cotton waste, bagging and cottonseed, seed cotton and cottonseed products, see pages 21–23.

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FRUIT AND VEGETABLE QUARANTINE

The promulgation in 1923 of quarantine 56, restricting the entry into the United States of all fruits and vegetables, was discussed in last year's report. (See pp. 16 and 17.) This quarantine, which became effective November 1, 1923, was amended October 23 of that year to make provision for the entry of certain hothouse-grown fruits and other specialties which can be accepted as free from risk of carrying injurious insects, including fruit flies. Under this amendment entry has been authorized of the following fruits: (1) Hothouse-grown grapes, when they can from place of origin and manner of growth be considered as absolutely free from risk; (2) sour oranges from Spain imported for marmalade manufacturing, with entry limited to northern ports and for use in northern factories under full control, the process including prompt cooking of the fruits and the burning of all waste, including packing material and crates; (3) avocados from the West Indies and the United States of Colombia; and (4) *Citrus medica* from Palestine for use in connection with religious ceremonials. As will be noted elsewhere, a series of surveys has been made of the avocado in the West Indies which indicated complete freedom of this fruit from fly attack. A similar survey of the United States of Colombia has indicated a corresponding safety of Colombian avocados. The entry of all such fruit, however, is further safeguarded under permit by limiting it to certain ports of entry and providing for thorough inspection.

The administration of this quarantine, involving the control under permit and inspection at port of arrival of all imports of fruits and vegetables, has added very much to the port inspection work of the board, and has necessitated a considerable increase in the inspection force. In the course of this work a great deal of contraband material has been intercepted and excluded, and a new and very serious risk from Spanish grapes has been determined. For a record of the fruits and vegetables imported under this quarantine see tables on pages 24–28.

THE ALMERIA GRAPE SITUATION

In the course of inspecting fruits and vegetables entered at the port of New York under quarantine 56, it was discovered in the latter part of November, 1923, that the so-called Malaga grape from the district of Almeria, Spain, was sparsely infested with maggots of the Mediterranean fruit fly. No suspicion had hitherto been entertained that this grape is attacked by the Mediterranean fruit fly. A general conference was called November 27, 1923, including the importers and handlers of such grapes, to consider this new danger, and as a result of this conference it was determined to exclude all "lines" of grapes in which any infestation was found and to require their exportation, and to permit entry of "lines" in which no infestation was found. Such action seemed to be justified by the fact that the majority of the crop had already been imported and distributed, and the balance of the crop was either already at dock awaiting entry or en route. The term "line" covered grapes originating in a particular vineyard. The persons in interest promised not to ship any infested lines to Cuba or other West Indian Islands.

It should be noted that the infestation of these grapes has been very slight; so slight, in fact, that the original determination might not have been made except for the unusual expertness and skill of the department's inspectors. For the most part the grapes showed no exterior sign of attack. In fact, as a rule the infested berries were superior in appearance and would normally be eaten without suspicion by anyone. While as a rule only single berries were found infested, in one instance 29 larvæ were taken from a single bunch of grapes. In spite of this sparseness of attack, the records of the actual findings in what was necessarily a more or less cursory examination of only 1 barrel in 15 of each "line," made it clear that the importations of the year must have brought into the United States many thousands of larvæ. It was further evident that the manner of storage and holding of these grapes and the ground cork in which they are packed offered unusually favorable conditions for the overwintering of the larvæ either in the grapes or after they had passed from the grapes to the cork dust for transformation.

On January 4, 1924, a second grape conference was called for the purpose of determining the future policy of restrictions on the entry of Almeria grapes. Following this conference the decision was reached that as a necessary measure of protection to the fruit and vegetable crops of the United States it was advisable to prohibit further entry of Almeria grapes.

To provide for such prohibition and for any like control as to other countries or districts which may later be necessary with respect to imports of grapes, the rules and regulations supplemental to Notice of Quarantine 56, governing the importation of fruits and

vegetables into the United States, were amended, effective January 18, 1924, to provide that grapes of the European or Vinifera type may be imported only upon the presentation of evidence satisfactory to the United States Department of Agriculture that such grapes are not attacked in the country of origin by injurious insects, including fruit flies.

(For a fully informing report on the Almeria grape situation see S. R. A. Nos. 77, 78, and 79, 1923–24.)

EXPLORATION AND RESEARCH WORK

Certain exploration and research work is conducted by the board in cooperation with the appropriate research bureaus of the department when the information to be obtained is immediately necessary with respect to quarantines which the board is enforcing or quarantine subjects which are before the board for determination. Some of this work has been more or less of a continuing nature, such as the studies of the pink bollworm of cotton in the Laguna, Mexico, and certain research work in connection with the date-scale quarantine. In both of these fields of exploration and research, very important information has been obtained during the year, which will be set forth in reports issued in cooperation with the board and the bureaus concerned.

FRUIT-FLY SURVEYS IN MEXICO, CENTRAL AMERICA, COLOMBIA, AND CUBA

For the purpose of securing information necessary for the adequate enforcement of the fruit and vegetable quarantine (No. 56) field surveys were undertaken in the latter part of the year 1923, with respect to Mexico and the Central American States and the United States of Colombia by Dr. William M. Mann, and with respect to Cuba and the Isle of Pines by G. F. Moznette and H. L. Sanford.

The survey work in Mexico extended from September 21 to December 31 and had for its object the reexamination of the fruit-fly conditions, particularly along the west coast of Mexico, including Lower California, and southward to include the State of Jalisco. No evidence was found of the occurrence of the Mexican fruit fly (*Anastrepha ludens*) or other fruit flies along the west coast of Mexico in the States of Sonora, Sinaloa, and Nayarit, nor in Lower California. There was evidence of some occurrence of the Mexican fruit fly at Tepic, and this fly was found more or less throughout the State of Jalisco, very generally attacking sour oranges and navel and other oranges, and abundantly in the coastal and more tropical regions of the adjacent State of Colima. It was found to rarely attack the ordinary oranges of export, namely, the navel and seedling oranges as grown in the more elevated districts of Jalisco, its decided preference in such regions seeming to be the sour orange. As a result of this exploration it seemed reasonable at least to permit the export of oranges from the State of Lower California to Canada by rail in bond through the United States, over prescribed routes, as is now permitted of oranges grown in the State of Sonora. The abundant occurrence, however, of the Mexican fruit fly, which is particularly an enemy of citrus fruits, and also the occurrence of other fruit flies in Jalisco, make it undesirable to modify otherwise the existing embargo as to oranges and certain other fruits from Mexico. The recognized possibility of spread northward of this Mexican orange fly makes it undesirable to permit any consumption entry into the United States of Mexican oranges.

The survey work in Cuba and in the Isle of Pines consisted of a series of investigations at different seasons, beginning in November, 1923, and carrying through the summer of 1924, for the purpose of determining whether or not the avocados and grapefruit grown in these regions were free from fruit fly and other injurious insect attack and therefore safe for commercial entry at southern ports of the United States. With the general knowledge of their apparent freedom from attack, provision had already been made for the entry of such fruits at northern ports where any infestation could be detected under conditions comparatively free from risk of local establishment of new fruit pests. In the course of these surveys these fruits appeared to be free from attack by fruit flies or other insects dangerous to the fruit cultures of the United States and entry at certain southern ports under adequate restrictions and inspection has been provided for.

Incidental to this survey it was learned that Mexican fruit was still being permitted entry in considerable quantities into Cuba, and much of this fruit in the Cuban markets was found to be infested with the Mexican fruit fly, involving very large risk to the future fruit cultures of Cuba. This information was brought to the attention of the authorities and a strict enforcement of the prohibition of further entry of such fruit was promised. This discovery, made in November, 1923, made it necessary to carry out

the surveys referred to above with great thoroughness during the season of 1924 on account of the possibility of the establishment of the Mexican fruit fly, a very serious citrus pest in Mexico and Central America. These surveys, however, gave no evidence that such establishment had so far been effected.

A survey of Colombia and Central America was conducted by Dr. William M. Mann between February and June, 1924, beginning with Colombia.

The principal object in the investigation of Colombia was the desire on the part of Colombian authorities to have entry authorized of the considerable avocado production which had been developed particularly for the American market. The survey made by Doctor Mann in February and the first of March covered the principal avocado district of northern Colombia (Santa Marta). No infestation by fruit flies of the avocados of that general area was found and no other infestation by injurious insects harmful to the United States. On the basis, therefore, of this investigation, the entry of avocados from the Santa Marta district of Colombia into the United States at northern ports was authorized under permit and inspection at the port of entry.

The survey of Central America included the States of Costa Rica, Honduras, and Gautemala and covered the period between March 21 and June 2, 1924. The survey of these States had relation particularly to requests for permits to import citrus fruit from certain districts in these countries. The work in Honduras was considerably curtailed by reason of disturbed conditions there. Fruit fly infestation was determined in all three of these countries, and in both Costa Rica and Guatemala the Mexican fruit fly (*Anastrepha ludens*) was found to be established, as well as other species of Anastrepha. It was evident from this survey that the entry of citrus and other fruits prohibited by quarantine 56 from these countries was distinctly unsafe.

While the surveys reported above had in each case a special object, a great deal of information was secured with respect to the fruit fly and other enemies of various fruits which will be of great future service to the board.

PLANT-QUARANTINE CONFERENCE

A very important conference of State quarantine officials was held in Washington April 28 to 30, 1924. This conference was convened at the call of the Federal Horticultural Board and had for its purpose to eliminate conflict in the exercise of Federal and State plant quarantine powers, and to secure fuller cooperation in the enforcement of plant quarantines on the part of State and Federal authorities. Official delegates, representing some 21 States, chiefly central and eastern, were in attendance, and also officials of the Federal Horticultural Board, the office of the solicitor of the department, and officers of other bureaus cooperating with the board in the enforcement of Federal quarantines.

Immediately upon convening, the delegates elected W. C. O'Kane, State entomologist of New Hampshire, permanent chairman of the conference, and R. C. Althouse, assistant to the chairman of the Federal Horticultural Board, was chosen secretary.

The need for such conference grew out of the great number of State embargoes placed upon the movement of plants and plant products from areas infested with dangerous pests and diseases, many of which were more or less in conflict with Federal quarantines providing for movement of the products in question under inspection and certification.

The conference opened with a general discussion of the legal phases of State and Federal quarantines based on a very complete analysis prepared by the solicitor of the department of the limitations of Federal and State quarantine powers as determined by decisions of the United States Supreme Court. There followed a detailed examination and discussion of the existing State quarantines, which in some cases were in conflict, and in other cases, paralleled Federal plant quarantines.

At the conclusion of these discussions a committee was appointed by the chairman of the conference composed of the members of the Federal Horticultural Board and five State officials, to draft recommendations of agreement for the consideration of the conference. The report of this committee, with the unanimous indorsement of all its members, was submitted to the conference on the morning of April 30, and after full discussion and slight amendment was unanimously adopted.

This agreement was subsequently presented at the sessions of the Western Plant Quarantine Board in Denver, in May, and after full discussion by this board, an association of the plant quarantine officials of 11 of the Western States, was approved and adopted by that body. This agreement was later submitted to all States not represented at either of these conferences and has received the indorsement of such States, so that now it is approved and indorsed

by the 48 States of the Union, as well as by Porto Rico and Hawaii. A full report of this conference is given in the service and regulatory announcements of the Federal Horticultural Board for April–June, 1924, pages 67 to 79, including the summary of the Supreme Court decisions and the text of the recommendations as adopted.

In general, the conclusions reached involve understandings to limit embargoes on the movement of plants and plant products to subjects which can not be safeguarded by lesser restrictions under permit, inspection, and disinfection, with the object of placing as little restriction as is possible with safety on the interstate movement of products. The States further agreed to so limit quarantines as not to conflict with Federal quarantines and to revise or modify any existing quarantines which were in such conflict. Provision was also made for the correlation and cooperation between State and Federal quarantines, and for advance notification on the part of States of proposed action, such advance notification being already provided for in the case of Federal action under the terms of the plant quarantine act.

An admirable spirit of cooperation was manifested throughout the conference, and the understandings and agreements reached have already resulted in eliminating much of the conflict between State and Federal quarantine action, and promise to largely prevent such conflict in the future.

PLANT-QUARANTINE INSPECTION

EXTENT OF FIELD

The Plant-Quarantine Inspection Service is responsible for the enforcement at all maritime ports of entry and interior points, including the District of Columbia, of all plant quarantines under the jurisdiction of the Federal Horticultural Board. This work embraces the following features:

(1) The inspection of all vessels arriving at ports of entry from foreign ports and, in many cases, from domestic ports.

(2) The inspection and disposition of all plants and plant products under restriction found in passengers' baggage by United States customs officials.

(3) The inspection of all restricted plants and plant products, including nursery stock, seeds and bulbs, and fruits and vegetables carried as cargo and offered for entry into the United States from all foreign countries and localities, and in certain cases from domestic territory.

(4) Disinfection (fumigation or sterilization) when necessary as a condition of entry of such plants and plant products.

(5) Inspection, in cooperation with customs and post-office officials, of restricted plants and plant products arriving in the mail by foreign parcel post.

(6) Inspection of plant introduction gardens of the Bureau of Plant Industry.

MARITIME PORT INSPECTION

The board now has inspectors stationed at Astoria, Oreg.; Baltimore, Md.; Boston, Mass.; Charleston, S. C.; Galveston, Tex.; New Orleans, La.; New York City; Philadelphia, Pa.; Portland, Oreg.; and Seattle, Wash. An inspection service has also been recently inaugurated at Chicago, Ill., and St. Louis, Mo.

In collaboration with the States concerned, inspection is conducted at Eureka, Gaviota, San Luis Obispo, San Francisco, San Pedro, and San Diego, Calif.; at Gulfport and Pascagoula, Miss.; Pensacola, Tampa, Key West, Miami, and Jacksonville, Fla.; and at Savannah, Ga. In collaboration with the United States Customs Service, inspection is conducted at Mobile, Ala.; Newport News and Norfolk, Va.; and at Portland, Me. In practically every State the State entomologist, and in some instances his assistant, have been appointed collaborators and assist in the enforcement of the board's quarantines and regulations at interior points.

INSPECTION OF VESSELS

Vessels from foreign countries and localities are met on arrival and boarded by inspectors or collaborators of the board, and a thorough search made of storerooms, ice boxes, fruit and vegetable lockers, crew's quarters, and passengers' quarters. If material is found which is contraband under the quarantine regulations, adequate safety measures are invoked. Frequently, destruction is the only practical safeguard and this method is often followed. The inspection extends to plants carried by vessels for decorative purposes, and any pest infestation is properly safeguarded. Prohibited or restricted material which may be concealed on the vessel and may not be found by the inspectors is prevented landing through the cooperation of the United States Customs Service, which maintains guards on vessels from foreign ports. Vessels are board-

ed in the stream or at the dock, depending largely on the possibility of the presence of dangerous material, such as fruit-fly infested fruits and vegetables.

Ships inspected during the fiscal year 1924, exclusive of California and Florida ports.

	Inspected	With contraband or restricted material
Astoria, Oreg. (7 months)	171	92
Baltimore, Md	997	333
Boston, Mass	1,047	519
Charleston, S. C	175	80
Galveston, Tex	786	178
Gulfport, Miss	8	1
Mobile, Ala. (11 months)	451	24
New Orleans, La	2,302	618
Newport News, Va	319	319
New York, N. Y	2,506	1,508
Norfolk, Va	7	4
Pascagoula, Miss	19	3
Philadelphia, Pa	1,467	918
Portland, Me. (4 months)	37	35
Portland, Oreg	210	77
Savannah, Ga	18	6
Seattle, Wash	692	142
Total	11,212	4,857

BAGGAGE INSPECTION

The inspectors of the Treasury Department examine all baggage carried on vessels from foreign countries and bring to the attention of the board's inspectors, who are always present during this inspection, all plants or plant products, including fruits and vegetables, found in baggage. Inasmuch as traffic with Hawaiian ports is not under the jurisdiction of the customs authorities, baggage from such ports, if inspected, must be inspected by the agents or the collaborators of the board. All baggage from Hawaiian ports is thus inspected by the board for the presence of host fruits of fruit and melon flies, and the finding of infested fruits and vegetables in such baggage is not at all uncommon.

CARGO INSPECTION

Commodities under regulation by the board and carried as cargo by vessels from foreign ports cover a wide range of articles and move in great volume. This feature of the work involves the inspection of large shipments of nursery stock, such as fruit and rose stocks, bulbs and tree seeds, immense quantities of fruits and vegetables, large consignments of cotton lint, cotton waste, etc., and such materials as broomcorn and many other items under regulation. (See tables on pp. 16–28.)

DISINFECTION

The board supervises the fumigation under vacuum of foreign cotton and certain related products offered for entry into the United States, and also the sterilization of broomcorn and certain grains and cereals. Vacuum plants are in operation at New York and Boston on the eastern coast, and at San Francisco, Portland, and Seattle on the western coast. A plant at Astoria, Oreg., is nearing completion. Steam sterilization is also available at New York, Boston, and Oakland, Calif. The closest possible supervision is maintained over the operation of these plants, in order that any error, either mechanical or otherwise, may be promptly corrected.

INTERIOR INSPECTION

Quantities of nursery stock, plants, bulbs, and fruits and vegetables, as well as restricted cotton products, are brought into the United States by foreign parcel post and offered for entry. The distribution facilities of the Post Office Department have brought the parcel post into popular favor as a transporting agency for plant products, and a wide avenue has been opened to the possible entrance of pests. The necessity of prompt dispatch of mail makes it important that inspection of plant products in the mail be made at every possible strategic point. Through cooperation with the customs and postal officials, arrangements have been made to hold such plant shipments for inspection at points where the board maintains inspectors. In some instances, plant products are forwarded to points where State inspectors, acting as collaborators of the board, are located, thus expediting proper disposition.

DISTRICT OF COLUMBIA INSPECTION

This work has continued along the line indicated in the last annual report. Some 15,178 lots of plant material were examined for insects and plant diseases during the fiscal year, and of this number 6,622 were fumigated. Cotton samples numbering 12,927 were received and fumigated before shipment to the consignee and 5,709 containers of domestic plant material arriving by express or in the mails were examined. In addition, 2,529 orders of miscellaneous plants shipped from Bell, Md., introduction gardens of the Bureau of Plant Industry were inspected.

INSPECTION OF PLANT INTRODUCTION GARDENS

As has been the practice for a number of years, agents of the board have made inspections of the various plant introduction gardens maintained by the Department of Agriculture at Miami and Brooksville, Fla., Savannah, Ga., Chico, Calif., and Mandan, N. Dak.

PESTS INTERCEPTED

During the fiscal year the inspectors and collaborators of this service collected on imported plants and plant products 573 recognized species and 251 insects which could only be placed generically.

As elsewhere noted, during the latter part of November, 1923, grapes arriving in this country from Almeria, Spain, were found to be infested with the Mediterranean fruit fly. This fruit fly was also intercepted in peppers and star apples from Hawaii, and in an apple from France. The West Indian fruit fly was found in mangoes from Jamaica and Mexico, and in guavas from Cuba and Jamaica. Other interceptions of fruit flies were as follows: The Mexican fruit fly in oranges from Mexico; the olive fly in olives from Italy; the melon fly in string beans, papaya, and cucumbers from Hawaii; *Anastrepha distans* in mango from Costa Rica; *Anastrepha serpentina* in palm seed from the Canal Zone and in sapodilla from Dominica, British West Indies.

The pink bollworm was taken in cottonseed from China, Egypt, Hawaii, Mexico, and Porto Rico, in cotton bolls from Hawaii and Turkey, and in the seed pods of *Hibiscus cardiophyllus* from Mexico. A cotton stainer, *Dysdercus ruficollis*, was collected on cotton plants from Mexico. *Earias fabia*, an important cotton pest in India, Ceylon, and Australia, was intercepted in boll cotton from India.

Ants, earwigs, and wireworms were intercepted in soil about plants. *Agriotes lineatus* was found in soil about the roots of amaryllis from Germany. *Agriotes sputator* and *Anthous niger* were taken in soil about privet from Norway. The above wireworms, which represent three of the worst field-crop pests of Europe, are not established in the United States.

The citrus blackfly was intercepted on the leaves of grapefruit and orange from Cuba, on rose and spice leaves from the Bahama Islands, and on the leaves of orange, tangerine, and *Citrus* sp. from Jamaica. The narcissus fly was found in narcissus bulbs from China, France, and Holland. Fruit stocks from France were infested with the following insects: Brown-tail moth, white tree pierid, dagger moth, sorrel cutworm, and lackey moth. The European corn borer arrived in broomcorn from England and Italy. Broomcorn from Italy was also infested with the durra stem borer, an important enemy of durra and corn in Khartum, Sudan. The bean-pod borer was found to infest Lima beans from Cuba. The Hawaiian sugarcane borer arrived in sugarcane from Hawaii. The avocado weevil was taken in avocados from Panama and the mango weevil in mango seeds from Hawaii.

Two injurious potato weevils, *Rhigosipidius tucumanus* and *Epicaerus cognatus*, were intercepted in potatoes from Peru and Mexico, respectively. The former has been referred to in previous reports. The latter is related to the imbricated snout beetle of this country, and judging from the amount of injuries noted in the infested potatoes, it is a pest which should be strongly guarded against. Infested potatoes which have been found in ships' stores have invariably arrived during the spring months.

INSPECTION FACILITIES IN WASHINGTON

As has been pointed out in previous reports, the inspection facilities in Washington are inadequate for the inspection work which must be conducted. The material entered under special permit for inspection at Washington, D. C., should be given immediate attention and should be promptly dispatched to the consignee. Under the present congested conditions, it is not always possible to make prompt inspections. Provision should be made for an inspection house of suitable dimensions to insure prompt and adequate inspection under suitable safeguards. Much more space than is now available is needed for the conduct of the ordinary routine fumigation and sterilization work, and there is also need for extra space to carry on necessary experiments in fumigation and sterilization. Provision should also be made for a test ground for the growing of plants which have been fumigated or disinfected, in order to determine the resistance of various plants to hydrocyanic acid gas fumigation and other methods of disinfection and sterilization. It is also essential that there be fully equipped

and properly protected greenhouses in which suspicious material may be placed until it has been definitely determined that no danger can result from its introduction.

RECORD OF IMPORTS OF RESTRICTED PLANTS AND PLANT PRODUCTS

Under various foreign quarantines, the entry of certain plants and plant products is restricted and made subject to inspection, and, if necessary, disinfection, as a condition of entry for the purpose of excluding various plant diseases and insect pests. Among these restricted plants and plant products are nursery stock, plants and seeds for propagation, fruits and vegetables, grains from certain countries, broomcorn and cotton, cotton waste, cotton wrappings, and cottonseed products.

The records of the importations of these articles are indicated in the following discussion and tables.

IMPORTATIONS OF NURSERY STOCK, PLANTS AND SEEDS [3]

The importations recorded in Tables 1, 2, 3, and 4 are entered under regulation 3 of quarantine 37, under permits which are made continuing and are unlimited as to quantity which may be imported. The restrictions under this regulation are intended merely to afford opportunity to inspect and if necessary safeguard the products as they are so entered. In the case of Table 1, the entries made in the preceding year are also listed for the purpose of comparison and in Table 3 the bulb entries of the last five years are brought together to show the fluctuation in the entry of different classes of bulbs.

[3] Except as restricted by specific quarantines, field, vegetable, and flower seeds, and plant products imported solely for medicinal, food, or manufacturing purposes, are not restricted as to entry, and the taking out of permits for such articles is not required. No record is therefore kept by the Federal Horticultural Board of the entry of such articles.

TABLE 1.—*Importation of fruit, rose, and nut stocks*

[Figures indicate number of plants]

Kind of stock	England	France	Germany	Holland	Ireland	Italy	Scotland	Spain	Total	
									1923–24	1922–23
Fruit:										
Apple	24	4,131,595	34,000	90,250		350,000			4,605,869	3,920,910
Cherry		11,118,250	6,300	127,100		96,500			11,348,150	10,182,525
Grape		1,788				150		50	1,988	10,840
Olive								50	50	
Pear		3,632,140	10,800	51,600		51,000			3,745,540	3,037,294
Pineapple										100
Plum		3,223,950	10,400	41,000		76,000			3,351,350	2,948,665
Quince		1,018,500	2,000	12,000		11,000			1,043,500	975,250
Rose	3,083,016	2,444,000		4,403,117	156,300		40,000		10,126,433	7,575,409
Nut		24,950							24,950	35,800
Total	3,083,040	25,595,173	63,500	4,725,067	156,300	584,650	40,000	100	34,247,830	28,686,793

TABLE 2.—*Importation of bulbs, 1923–24*

[Figures indicate number of bulbs]

Bulb	Bermuda	Canada	China	England	France	Germany
Crocus		200		629		
Eranthis				588	500	
Fritillaria				454	100	
Galanthus		100		1,654	900	
Hyacinths		12		165	890,830	
Ixia				684	1,000	
Lily	569,225		150	1,535	271,382	
Lily of the Valley						17,059,470
Muscari				2,062	500	
Narcissus			1,422,666	725,520	49,285,605	
Scilla		100		8,727	700	
Tulips		1,000		1,963	148,935	
Total	569,225	1,412	1,422,816	743,981	50,600,452	17,059,470

TABLE 2.—*Importation of bulbs, 1923–24*—Continued

[Figures indicate number of bulbs]

Bulb	Holland	Ireland	Italy	Japan	Wales	Total
Chionodoxa	339,766					339,766
Crocus	10,815,007	84				10,815,920
Eranthis	92,226					93,314
Fritillaria	92,397					92,951
Galanthus	794,727					797,381
Hyacinths	31,303,963		2,770			32,197,740
Ixia	333,474					335,158
Lily	175,725		27,299	8,645,170		9,690,486
Lily of the Valley	499,225			10,140		17,568,835
Muscari	609,767					612,329
Narcissus	41,112,273	60	8,200	105,240	102	92,659,666
Scilla	985,235					994,762
Tulips	92,386,899				360	92,539,157
Total	179,540,684	144	38,269	8,760,550	462	258,737,465

TABLE 3.—*Importation of bulbs during the years stated*

Bulb	1923–24	1922–23	1921–22	1920–21	1919–20
Chionodoxa	339,766				
Crocus	10,815,920	8,286,500	6,319,082	5,514,805	3,977,892
Eranthis	93,314				
Fritillaria	92,951				
Galanthus	797,381				
Hyacinths	32,197,740	29,142,797	24,808,236	22,568,891	16,375,494
Ixia	335,158				
Lily	9,690,486	9,145,630	8,219,460	22,490,533	14,538,936
Lily of the valley	17,568,835	19,603,092	14,951,170	3,606,746	9,964,847
Muscari	612,329				
Narcissus	92,659,666	77,193,281	77,270,548	77,956,195	56,032,918
Scilla	994,762				
Tulips	92,539,157	76,719,116	64,846,940	55,075,343	49,972,184
Unclassified		183,900	70,750	4,756,369	1,653,790
Total	258,737,465	220,274,316	196,486,186	191,968,882	152,516,061

TABLE 4.—*Importation of tree seeds, 1923–24 and 1922–23*

[Figures indicate number of pounds]

Country of origin	Apple	Cherry	Nuts and palm	Ornamental and tree	Pear	Persimmon	Plum	Quince	Rose	Total
Africa				40						40
Australia			26,028	267						26,295
Austria	10	511		5,884	45		210		15	6,675
Brazil			1,197							1,197
Canada				1,060						1,060
Chile		323								323
China				1,350	6		3,161			4,517
Czechoslovakia		1,135		110						1,245
Denmark				682						682
France	25,463	5,460	108	6,472	928	20	856	5	10	39,322
Germany				1,554						1,554
Guiana (British)			20							20
Italy			225	672						897
Japan		110	91	8,544	1,412	802	6,429	66	1,281	18,735
New Zealand				8						8
Poland							1			1
Siam			375							375
Spain				50						50
Straits Settlements				1						1
Sweden				359						359
West Indies			914							914
Total	25,473	7,539	28,958	27,053	2,391	822	10,657	71	1,306	104,270
1922–23	21,225	2,661	35,515	15,724	7,819	1,601	8,263	246	814	93,868

The distribution within the United States of the classes of nursery stock recorded in the above Tables 1, 2, 3, and 4, is indicated in Table 5.

TABLE 5.—*Distribution, by States, of bulbs, nursery stock, and seeds imported under regular permit during fiscal year ended June 30, 1924*

[Figures indicate number of cases]

State	Bulbs	Fruit stocks	Rose stocks	Nut stocks
Alabama	350	3		
Alaska	8			
Arizona	56	1		
Arkansas	299	2		
California	5,302	18	4	
Colorado	870	1	8	
Connecticut	3,339	154	159	
Delaware	377	2		
District of Columbia	856			
Florida	144			
Georgia	1,106	1		
Idaho	77			
Illinois	31,049	10	111	
Indiana	2,110	67	49	
Iowa	2,390	261	37	
Kansas	776	56		
Kentucky	982		1	
Louisiana	259			
Maine	594			
Maryland	1,291	17	3	
Massachusetts	8,287	2	11	
Michigan	6,288	145	22	
Minnesota	2,191		3	
Mississippi	279		2	
Missouri	2,099	17	8	
Montana	270			
Nebraska	638	12		
Nevada	2			
New Hampshire	351		1	
New Jersey	10,296	20	139	
New Mexico	41			
New York	55,838	714	318	5
North Carolina	766	18		
North Dakota	124		1	
Ohio	9,940	106	114	1
Oklahoma	471	3	1	
Oregon	1,300	4	2	
Pennsylvania	21,873	50	41	1
Rhode Island	1,541			
South Carolina	822			
South Dakota	108		3	
Tennessee	1,460	7	5	
Texas	1,727		1	
Utah	408	1	1	
Vermont	392	1		
Virginia	1,489	9	1	
Washington	2,775	5		
West Virginia	636			
Wisconsin	2,742		8	
Wyoming	47			
Exported by permittees	835	20	7	
Total	188,271	1,727	1,061	7
1922-23	162,313	1,582	879	10

TABLE 5.—*Distribution, by States, of bulbs, nursery stock, and seeds imported under regular permit during fiscal year ended June 30, 1924*—Con.

State	Seeds (pounds)				
	Fruit	Nut and palm	Ornamental and tree	Rose	Total
Alabama		21	9		30
California	3,771	10,225	567		14,563
Colorado		10	21		31
Connecticut	130	992	106	25	1,253
District of Columbia		41	51		92
Florida	150	2,014	231		2,395
Georgia	2,736		375		3,111
Illinois	3,544	1,986	10,334	190	16,054
Indiana			2		2
Iowa	500		1,227		1,727
Kansas	21,527	12	70		21,609
Kentucky		1			1
Louisiana			7		7
Maryland	1				1
Massachusetts		187	121		308
Michigan	1		52		53
Minnesota		31	3		34
Missouri	2,192	90			2,282
Nebraska			102		102
New Hampshire			391		391
New Jersey	76	1,614	347	475	2,512
New York	349	2,030	1,903	240	4,522
North Carolina	2		87		89
Ohio		385	182		567
Oregon	126	86	13		225
Pennsylvania	5,758	8,411	10,023	376	24,568
South Carolina		11	5		16
Tennessee		77			77
Texas	4,018	188	3		4,209
Vermont			125		125
Virginia		26			26
Washington	2,042	230	263		2,535
Wisconsin	30	100	283		413
Exported by permittees		190	150		340
Total	46,953	28,958	27,053	1,306	104,270
1922-23	41,815	35,515	15,724	814	93,868

The record of entry under special permits issued under the provisions of regulation 14 of quarantine 37 for the purpose of keeping the country supplied with new varieties and necessary propagating stock, and to meet other technical and educational needs is given in Table 6.

During the fiscal year 1924, 1,107 such permits were issued authorizing the entry of 15,381,621 plants and bulbs. During the year importations were made under 862 of these permits, of

a total of 12,561,306 plants and bulbs. A summary of permits issued during the period of the quarantine is given in Table 7. It is interesting to note that the number of plant varieties considered during the five years of the quarantine has now reached a total of 19,016, of which 17,400 have been approved for entry.

In addition to the table mentioned, there has been prepared an additional table (Table 8) showing the distribution of the imported special permit material by States. (See also p. 20.)

TABLE 6.—*Special permit importations, fiscal year 1924, with combined totals for 1920, 1921, 1922, 1923, and 1924*

Class of plants	Fiscal year 1924			
	Permits issued		Permits imported	
	Number	Quantity	Number	Quantity
Gladioli	140	8,509,189	128	8,066,850
Dahlias	70	6,527	62	4,883
Iris:				
rhizomatous	144	38,529	116	23,502
bulbous	164	4,285,987	122	3,005,194
Peonies	173	267,967	119	85,652
Other bulbs, rhizomes, and roots	135	1,130,991	90	807,431
Ornamentals	81	409,057	62	193,706
Roses	150	18,578	143	14,061
Orchids	191	21,686	132	18,987
Herbaceous plants	146	692,071	113	340,661
Small fruits and fruit trees	9	1,039	6	379
Total		15,381,621		12,561,306

Class of plants	Grand totals, 1920–1924			
	Permits issued		Permits imported	
	Number	Quantity	Number	Quantity
Gladioli	646	34,838,372	482	22,141,885
Dahlias	269	22,278	210	15,203
Iris:				
rhizomatous	503	136,799	388	55,997
bulbous	417	17,339,919	257	9,931,415
Peonies	492	1,000,226	342	274,286
Other bulbs, rhizomes and roots	427	6,476,782	263	2,804,868

TABLE 6.—*Special permit importations, fiscal year 1924, with combined totals for 1920, 1921, 1922, 1923, and 1924*—Continued

Class of plants	Grand totals, 1920–1924			
	Permits issued		Permits imported	
	Number	Quantity	Number	Quantity
Ornamentals	422	1,995,241	285	1,216,172
Roses	380	89,618	316	65,707
Orchids	416	76,681	322	51,322
Herbaceous plants	437	2,865,831	293	1,322,014
Small fruits and fruit trees	37	5,933	15	698
Total		64,847,680		37,879,567

SUMMARY FOR THE YEARS 1920–1924

Fiscal year	Permits issued		Permits imported	
	Number	Quantity	Number	Quantity
1920	311	10,752,844	171	3,484,195
1921	622	13,965,013	411	8,132,634
1922	750	9,573,199	518	3,344,026
1923	897	15,175,003	719	10,357,406
1924	1,107	15,381,621	862	12,561,306
Grand total	3,687	64,847,680	2,681	37,879,567

TABLE 7.—*Special permit material: Number of different varieties of plants requested and approved for the fiscal years 1920–1924*

Class of plants	Requested	Approved	Percentage approved
Gladiolus	948	831	87.7
Dahlia	1,809	1,684	93.1
Iris:			
rhizomatous	1,584	1,500	94.7
bulbous	310	308	99.3
Peonies	1,415	1,226	86.6
Other bulbs, rhizomes, and roots	1,667	1,631	97.8
Ornamentals	2,696	2,169	80.5
Roses	2,155	1,802	83.6
Orchids	3,703	3,654	98.7
Herbaceous plants	2,585	2,464	95.3
Small fruits and fruit trees	144	131	90.9
Total	19,016	17,400	91.5

TABLE 8.—*Distribution of special permit material by States for fiscal years 1920–1924*

State	Gladiolus	Dahlia	Rhizomatous iris	Bulbous iris	Peony	Rose	Orchid	Ornamental and miscellaneous plants	Grand total of all imported material
Alabama	14,985	0	0	15,980	0	174	0	0	31,139
Arizona	0	0	0	0	0	0	0	17	17
Arkansas	0	0	0	0	0	0	0	0	0
California	1,677,365	2,786	12,941	6,676,281	2,156	7,373	17,342	961,122	9,357,366
Colorado	14,652	0	0	20,990	0	0	340	3,473	39,455
Connecticut	500	496	625	0	54	30,713	0	49,899	82,287
Delaware	0	0	0	0	0	0	6	1,019	1,025
District of Columbia	0	70	0	0	0	61	47	226	404
Florida	22,515	0	0	278,920	0	21	0	207,768	509,224
Georgia	0	0	0	59,910	0	0	0	510	60,420
Idaho	0	0	0	2,000	0	0	0	0	2,000
Illinois	2,780,917	33	8,621	510,015	14,967	1,027	448	171,078	3,487,106
Indiana	2,060,333	186	1,058	2,265	496	1,269	0	453	2,066,060
Iowa	38,235	0	0	0	15,052	0	0	12,174	65,461
Kansas	0	0	74	0	0	0	0	43	117
Kentucky	0	242	0	50,000	0	0	152	0	50,394
Louisiana	2,000	110	0	19,500	0	0	0	250	21,860
Maine	350	0	0	0	209	0	0	60	619
Maryland	20,057	242	35	101,000	18,085	0	0	1,118	140,537
Massachusetts	1,694,680	681	2,825	151,840	3,610	1,306	7,358	216,417	2,078,717
Michigan	11,220,960	1,448	1,994	265,340	22,673	265	47	269,433	11,782,160
Minnesota	78,081	44	792	0	1,289	160	72	67	80,505
Mississippi	6,500	0	9	49,776	0	0	0	27	56,312
Missouri	2,450	0	150	12,225	241	0	2,933	18,881	36,880
Montana	0	0	0	0	0	0	0	100	100
Nebraska	0	276	0	0	14	0	0	30	320
Nevada	0	0	0	0	0	0	0	0	0
New Hampshire	40,021	0	0	1,500	0	0	0	0	41,521
New Jersey	91,885	2,896	7,348	277,753	16,083	17,171	10,945	1,563,062	1,987,143
New Mexico	0	0	0	0	0	0	0	0	0
New York	1,566,680	2,023	3,781	505,005	87,268	2,359	7,046	1,306,730	3,480,892
North Carolina	3,975	0	0	7,990	0	0	0	24	11,989
North Dakota	0	0	0	0	7	0	0	0	7
Ohio	443,811	677	9,099	2,904	59,757	967	81	286,664	803,960
Oklahoma	510	0	0	8,000	0	0	0	198	8,708
Oregon	35,321	677	523	82,506	625	669	0	17,407	137,728
Pennsylvania	252,554	1,283	2,212	68,472	24,465	359	3,444	194,482	547,271
Rhode Island	616	911	551	190	2,209	155	47	12,371	17,050
South Carolina	0	0	0	10,000	0	0	0	0	10,000
South Dakota	0	0	11	0	2,410	587	0	84	3,092
Tennessee	0	54	361	114,266	222	0	0	1,400	116,303
Texas	2,000	0	0	137,980	0	65	0	125	140,170
Utah	0	0	0	0	0	0	0	497	497
Vermont	2,016	0	0	0	1,000	0	0	145	3,161
Virginia	16,000	0	2	348,004	898	0	0	7,766	372,670
Washington	13,178	68	2,574	88,853	28	511	0	14,587	119,799
West Virginia	0	0	0	4,000	0	0	0	36	4,036
Wisconsin	38,738	0	411	57,950	468	495	1,014	24,009	123,085
Wyoming	0	0	0	0	0	0	0	0	0
Total	22,141,885	15,203	55,997	9,931,415	274,286	65,707	51,322	5,343,752	37,879,567

IMPORTATIONS OF COTTON AND COTTON PRODUCTS

Tables 9 to 12 indicate, respectively, the importations of cotton, cotton waste, bagging, cottonseed, seed cotton, and cottonseed products during the year.

The actual number of bales of cotton, cotton waste, and bagging is indicated, but inasmuch as bales vary in size they are referred to as "running bales."

TABLE 9.—*Imports ginned cotton by country of growth and port of entry 1923–24, in running bales*

Ports	Baltimore	Boston	Calexico	Houston	Newport, Vt.	New York	Niagara Falls	Nyando
Arabia						12		
Australia						2		
Brazil						34		
British West Indies						33		
China		4,408				10,735		
Dominican Republic						200		
Dutch East Indies		24				1,100		
Egypt		88,441				26,132		
Haiti						5,034		
India		10,167				32,931		
Mexico			88,409			1,042		
Nicaragua						25		
Peru		69				102,914		
Porto Rico						1,131		
United States	1	1,142		139	506	224	356	80
Total	1	104,251	88,409	139	506	181,549	356	80

Ports	Port Huron	Portland, Oreg.	Richford	Rouses Point	St. Albans	San Francisco	Seattle	Vanceboro	Total
Arabia									12
Australia									2
Brazil									34
British West Indies									33
China		1,133				25,919	4,771		46,966
Dominican Republic									200
Dutch East Indies									1,124
Egypt									114,573
Haiti									5,034
India						550			43,648
Mexico						94			89,545
Nicaragua									25
Peru									102,983
Porto Rico									1,131
United States	6		46	1	257			800	3,558
Total	6	1,133	46	1	257	26,563	4,771	800	[1] 408,868

[1] Includes 1,165 bales of linters.

TABLE 10.—*Imports of cotton waste by country of origin and port of entry, 1923–1924, in running bales*

Country	Baltimore	Boston	Buffalo	Charleston	New Orleans	Newport, Vt.	New York	Philadelphia
Belgium		260			342		52	1,126
Brazil		107					820	
Canada		3,474	36			31	106	
Ceylon							40	
China		712					560	
Cuba							66	
England	942	7,730		1,438	910		2,910	2,554
France		196					449	23
Germany		159					808	59
Holland		7,843					2,757	1,243
India		100					3,467	167
Italy		1,354					2,449	1,414
Japan		177					275	325
Mexico							251	
Scotland							115	
Spain							1,745	717
Switzerland		1,033					1,017	244
United States								10
Total	942	23,145	36	1,438	1,252	31	17,887	7,882

TABLE 10.—*Imports of cotton waste by country of origin and port of entry, 1923–1924, in running bales*—Continued

Country	Portland, Ore.	Richford	Rouses Point	St. Albans	San Francisco	Savannah	Seattle	Utica	Total
Belgium									1,780
Brazil									927
Canada		42	132	152				37	4,010
Ceylon									40
China	90				82		627		2,071
Cuba									66
England						204			16,688
France									668
Germany					100				1,126
Holland									11,843
India									3,734
Italy									5,217
Japan					3,483		7,214		11,474
Mexico									251
Scotland									115
Spain									2,462
Switzerland					90				2,384
United States			8						18
Total	90	42	140	152	3,755	204	7,841	37	64,874

TABLE 11.—*Imports of bagging by country of origin and port of entry, 1923–1924, in running bales*

Country	Baltimore	Boston	Charleston	Detroit	New Orleans	New York
Algeria						66
Belgium	1,748	91	371		1,083	3,379
Canada		3		916		1,361
Denmark						1,172
Egypt		217				39
England	2,003	1,864			6,938	7,077
France	279	254			1,557	6,448
Germany	382	390	677			3,608
Holland	886	563	859		1,199	8,806
Ireland						344
Italy						325
Japan						1
Mexico						90
Scotland	58	11	49			1,931
Spain					935	2,741
Switzerland						729
Total	5,356	3,393	1,956	916	11,712	38,117

Country	Norfolk	Philadelphia	Port Huron	Portland, Oreg.	San Francisco	Savannah	Total
Algeria							66
Belgium	143	3,412			947	153	11,327
Canada			436				2,716
Denmark		117					1,289
Egypt							256
England	5,074	6,731				560	30,247
France	134	3,296					11,968
Germany		875					5,932
Holland	368	3,545					16,226
India		25					25
Ireland							344
Italy		180					505
Japan				200			201
Mexico							90
Scotland		882					2,931
Spain		250					3,926
Switzerland							729
Total	5,719	19,313	436	200	947	713	88,778

TABLE 12.—*Imports of cottonseed and cottonseed products, 1923–1924, in tons*

Port	Cotton-seed	Cotton-seed cake	Cotton-seed meal
Boston		64	621
Calexico	45,367		
Eagle Pass		847	
Total	45,367	911	621

IMPORTATIONS OF FRUITS AND VEGETABLES UNDER QUARANTINE NO. 49

A record of importations of fruits and vegetables from Cuba, the Bahamas, Jamaica, Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java, as restricted by quarantine 49, is indicated in Tables 13 and 14. This record covers the 4-months' period between July 1 and October 31, inclusive. Beginning with November 1, quarantine 49 was replaced by quarantine 56, the record of importations under which are given in Tables 15 and 16.

TABLE 13.—*Fruits and vegetables imported under Quarantine No. 49, from July 1, 1923, to November 1, 1923, by ports of entry*

Kind	Baltimore	Boston	Key West	Los Angeles
Avocadoes, crates			7,894	
Bananas, bunches	843,000	639,519	5,262	1,622
Cassava, crates			84	
Coconuts, number	439,000	120,000		
Dasheens, crates			34	
Grapefruit, crates		100	64,733	
Mammeas, crates			65	
Okra, crates			62	
Oranges, crates		94	1	
Pepper, crates			43	
Pineapples, crates		5,255	285	
Plantains, bunches		5	9,921	
Pumpkins, crates			60	
Soursops, crates			63	
Tangerines, crates		17		
Exported by permittees: Grapefruit, crates			300	

TABLE 13.—*Fruits and vegetables imported under Quarantine No. 49, from July 1, 1923, to November 1, 1923, by ports of entry*—Continued

Kind	Miami	New Orleans	New York
Avocadoes, crates	65	22,149	10,089
Bananas, bunches	11,157	61,100	4,136,580
Beans (Lima), crates			8
Cassava, crates			432
Coconuts, number	1,700		10,274,667
Copra, bags			4,292
Dasheens, crates			4
Grapefruit, crates		4,127	68,062
Lemons, crates		5	
Limes, crates		24	472
Mammeas, crates		49	21
Mangoes, crates		620	497
Oranges, crates		10	215
Papaya, crates			7
Pineapples, crates		4,907	64,369
Plantains, bunches			1,087
Sapodillas, crates	28		
Exported by permittees:			
Grapefruit, crates			24,248
Oranges, crates			1,065
Pineapples, crates			3

Kind	Philadelphia	Tampa	Total
Avocadoes, crates		15,831	56,028
Bananas, bunches	1,380,579	20	7,078,839
Beans (Lima), crates			8
Cassava, crates		158	674
Coconuts, number	776,600		11,611,967
Copra, bags			4,292
Dasheens, crates		42	80
Garbanzos, crates		8	8
Grapefruit, crates			137,022
Lemons, crates			5
Limes, crates	11		507
Mammeas, crates		75	210
Mangoes, crates			1,117
Okra, crates			62
Oranges, crates			320
Papaya, crates		8	15
Pepper, crates			43
Pineapples, crates		531	75,347
Plantains, bunches		85,500	96,513
Pumpkins, crates		50	110
Sapodillas, crates			28
Soursops, crates		45	108
Tangerines, crates			17
Exported by permittees:			
Grapefruit, crates			24,548
Oranges, crates			1,065
Pineapples, crates			3

TABLE 14.—*Fruits and vegetables imported under quarantine No. 49, from July 1, 1923, to November 1, 1923, by countries of origin*

Kind	Bahamas	Canal Zone	Costa Rica	Cuba	Jamaica	Total
Avocadoes, crates	65			55,963		56,028
Bananas, bunches		358,467	1,317,750	864,151	4,538,471	7,078,839
Beans (Lima), crates				8		8
Cassava, crates				674		674
Coconuts, number	1,700	5,801,917		290,100	5,518,250	11,611,967
Copra, bags		210			4,082	4,292
Dasheens, crates				80		80
Garbanzos, crates				8		8
Grapefruit, crates			213	136,712	97	137,022
Lemons, crates				5		5
Limes, crates			467	29	11	507
Mammeas, crates				210		210
Mangoes, crates				1,117		1,117
Okra, crates				62		62
Oranges, crates			316	1	3	320
Papaya, crates				15		15
Pepper, crates				43		43
Pineapples, crates			15,012	60,333	2	75,347
Plantains, bunches		411	5	96,097		96,513
Pumpkins, crates				110		110
Sapodillas, crates	28					28
Soursops, crates				108		108
Sugar apples, crates				11		11
Tangerines, crates			17			17
Exported by permittees:						
Grapefruit, crates	22			16,931	7,595	24,548
Oranges, crates					1,065	1,065
Pineapples, crates					3	3

TABLE 15.—*Fruits and vegetables imported under quarantine 56, November 1, 1923, to June 30, 1924, by countries of origin*

[Figures indicate crates, cases, boxes, packages, casks, bags, and bundles, unless otherwise designated]

Kind	Country and amount	Total
Apricots	Argentina, 1	1.
Artichokes	Chile, 49	49.
Asparagus	Argentina, 700; Chile, 95; Mexico, 5 pounds	795 and 5 pounds.
Avocados	Colombia (Santa Marta), 602; Cuba, 5,403; Dominican Republic, 3.	6,008.
Ayales	Mexico, 2	2.
Bananas, bunches	Canal Zone, 357,671; Colombia, 2,160,500; Costa Rica, 2,392,006; Cuba, 1,350,192; Dominican Republic, 41; Guatemala, 3,355,607; Honduras, 7, 844,756; British Honduras, 349,200; Jamaica, 5,530,833; Martinique, French West Indies, 146; Mexico, 2,058,940; Nicaragua, 2,124,966; Panama, 1,894,998.	29,419,856.
Beans:		
Fava	Bermuda, 3,576	3,576.
Lima	Bermuda, 175; Cuba, 48,079; Mexico, 2 and 69 pounds	48,256 and 69 pounds.
String	Cuba, 156; Mexico, 889 and 6,794 pounds	1,045 and 6,794 pounds.
Beets	Bahamas, 123; Bermuda, 28,118; Mexico, 61,661 pounds	28,241, and 61,661 pounds.
Burdock	Japan, 14	14.
Cabbage	Bahamas, 10; Bermuda, 13; Cuba, 263; Holland, 50,241; Mexico, 664 and 3,542 pounds.	51,191 and 3,542 pounds.
Carrots	Argentina, 21; Bahamas, 379; Bermuda, 166,880; Denmark, 1,500; Holland, 21,816; Mexico, 2 and 118,315 pounds.	190,598 and 118,315 pounds.
Cassava	Cuba, 1,347	1,347.
Cauliflower	Argentina, 122; France, 75; Mexico, 85	282.
Celery	Argentina, 11; Belgium, 10; Bermuda, 32,882; Mexico, 4 and 455 pounds.	32,907 and 455 pounds.
Chayotes	Cuba, 500; Dominican Republic, 5; Jamaica, 1; Mexico, 1,703 pounds.	506 and 1,703 pounds.
Cherries	Argentina, 168; Chile, 1,479	1,647.
Cipolline	Greece, 2; Italy, 28,220	28,222.
Crosnes	Belgium, 432	432.
Cucumbers	Bermuda, 143; Cuba, 3,507; Mexico, 15,785 and 1,255 pounds	19,435 and 1,255 pounds.
Dasheens	Azores, 757 and 1,650 pounds; China, 5,670; Cuba, 1,042; Dominican Republic, 242; Japan, 3,163; Madeira, 16; Mexico, 88.	10,978 and 1,650 pounds.
Eggplants	Argentina, 4; Cuba, 81,888; Honduras, 120; Mexico, 8,933 and 223 pounds	90,945 and 223 pounds.

TABLE 15.—*Fruits and vegetables imported under quarantine 56, November 1, 1923, to June 30, 1924, by countries of origin*—Continued

Kind	Country and amount	Total
Endives	Belgium, 56,810; England, 60; Germany, 277	57,147.
Fennel	Bermuda, 296	296.
Garbanzos, pounds	Mexico, 10	10.
Garlic	Argentina, 2; Chile, 313; Egypt, 246; Hungary, 150; Italy, 6,024; Mexico, 3,471 and 27,658 pounds; Spain, 58.	10,264 and 27,658 pounds.
Ginger (crude)	China, 2,859; Cuba, 2; Jamaica, 25; Japan, 11	2,897.
Grapes [1]	Argentina, 2,516; Australia, 44; Belgium, 19,673; Chile, 6,358; England, 234; Germany, 20; Italy, 6,982; Peru, 20; Spain, 591,402.	627,249.
Grapefruit	Bahamas, 24; Cuba, 29,095; Dominica, British West Indies, 2; Jamaica, 244.	29,365.
Horseradish	Germany, 24,709; Poland, 2; Sweden, 1	24,712.
Kale	Bermuda, 8,671	8,671.
Kohl-rabi	Bermuda, 17	17.
Kudzu	China, 984; Japan, 5	989.
Lemons	Azores, 1; Italy, 418,252; Mexico, 897 and 114 pounds; Spain, 771.	419,921 and 114 pounds.
Lettuce	Bermuda, 4,388; Mexico, 183 and 25,356 pounds	4,571 and 25,356 pounds.
Lily bulbs (edible)	China, 311; Japan, 7	318.
Limes (sour)	Antigua, British West Indies, 54; Costa Rica, 1; Cuba, 4; Dominica, British West Indies, 12,438; Jamaica, 1,334; Mexico, 4,459 and 276,753 pounds; St. Kitts, 175; St. Lucia, 4,703.	23,168 and 276,753 pounds.
Melons	Argentina, 4,685; Chile, 7,908; Cuba, 6; Italy, 478; Mexico, 138,868 and 2,790 pounds.	151,945 and 2,790 pounds.
Mint	Bermuda, 236; Mexico, 1,741 pounds	236 and 1,741 pounds.
Mustard	Bermuda, 6; Mexico, 1,263 pounds	6 and 1,263 pounds.
Nectarines	Argentina, 68; Belgium, 13	81.
Okra	Bahamas, 14; Cuba, 11,210; Jamaica, 3	11,227.
Onions	Australia, 1,931; Bermuda, 11,180; Brazil, 25; Chile, 23,187; China, 5; Cuba, 8,766; Egypt, 91,603; England, 200; France, 61; Holland, 55; Italy, 2,583; Mexico, 31,412 and 210,088 pounds; Montserrat, 520; Spain, 538,584.	710,112 and 210,088 pounds.
Oranges	Cuba, 1,698; Jamaica, 206; Spain, 1,775	3,679.
Pachyrhizus	China, 257	257.
Parsley	Argentina, 100; Bahamas, 118; Bermuda, 56,082; Cuba, 159; Mexico, 5 and 9,258 pounds.	56,464 and 9,258 pounds.
Parsnips	Holland, 1,997	1,997.
Peaches	Argentina, 10,648; Belgium (hothouse), 13; Chile, 100	10,761.
Pears	Argentina, 499; Chile, 20	519.
Peas	Bermuda, 41; Mexico, 35,228 and 1,717 pounds	35,269 and 1,717 pounds.
Pepper	Argentina, 7; Bahamas, 15; Canal Zone, 120; Cuba, 156,788; Dominican Republic, 4; Haiti, 240; Jamaica, 2; Mexico, 73,548 and 280,754 pounds; Panama, 78.	230,802 and 280,754 pounds.
Pineapples	Azores, 2; Brazil, 937; Canal Zone, 30; Costa Rica, 41,405; Cuba, 1,244,524; Dominican Republic, 1; Honduras, 480; Jamaica, 2; Mexico, 61 and 565 pounds.	1,287,442 and 565 pounds.
Plantains, bunches	Canal Zone, 18,056; Costa Rica, 6; Cuba, 45,559; Dominican Republic, 6,252; Guatemala, 1,240; Haiti, 8; Honduras, 35,713; British Honduras, 88,420; Mexico, 4,101; Panama, 1,731; Venezuela, 21.	201,107.
Plums	Argentina, 2,640	2,640.
Potatoes, barrels	Bermuda, 32,804	32,804.
Pumpkins	Cuba, 101; Mexico, 735 and 157 pounds	836 and 157 pounds.
Quinces	Argentina, 50	50.
Radishes, pounds	Mexico, 9,251	9,251.
Romaine	Bermuda, 6	6.
Shallots	Belgium, 19	19.
Sorrel	Bermuda, 37	37.
Spinach	Bermuda, 44; Mexico, 1 and 33,081 pounds	45 and 33,081 pounds.
Squash	Bermuda, 4; Cuba, 3,056; Mexico, 406 and 8,274 pounds	3,466 and 8,274 pounds.
Strawberries	Mexico, 45 and 282 pounds	45 and 282 pounds.
Swiss chard	Bermuda, 6	6.
Tamarinds, pounds	Jamaica, 452; Mexico, 140	592.
Tangerines	Argentina, 817; Cuba, 520	1,337.
Thyme	Bermuda, 2	2.
Tomatoes	Bahamas, 143,257; Chile, 20; Cuba, 160,490; Dominica, British West Indies, 6; Mexico, 1,621,255 and 104,439 pounds.	1,925,028 and 104,439 pounds.
Turnips	Bermuda, 856; China, 3; Mexico, 5 and 57,103 pounds	864 and 57,103 pounds.
Water chestnuts	China, 9,980; Japan, 10	9,990.
Water cress	Mexico, 2	2.
Water-lily roots	China, 1,792; Japan, 14	1,806.
Watermelons	Chile, 838; Dominican Republic, 1; Mexico, 594,350 pounds	839 and 594,350 pounds.

[1] Includes Vinifera, hothouse, processed, and unclassified grapes.

TABLE 15.—*Fruits and vegetables imported under quarantine 56, November 1, 1923, to June 30, 1924, by countries of origin*—Continued

Kind	Country and amount	Total
Entered for immediate export:		
Garlic	Mexico, 25	25.
Ginger (crude)	China, 6	6.
Grapes, barrels	Italy, 6; Spain, 2,590	2,596.
Grapefruit	Bahamas, 102; Cuba, 46,175; Jamaica, 18,881	65,158.
Kudzu	China, 3	3.
Lemons	Italy, 59,811	59,811.
Lily bulbs (edible).	China, 1	1.
Onions	Belgium, 396; Egypt, 45,543; Italy 2,665; Mexico, 645; Spain, 2,254.	51,503.
Oranges	Cuba, 11; Jamaica, 249	260.
Pepper	Mexico, 384	384.
Pineapples	Cuba, 13,588	13,588.
Tomatoes	Mexico, 150,735	150,735.
Water chestnuts	China, 1	1.

TABLE 16.—*Fruits and vegetables imported under quarantine 56, exclusive of Canada, November 1, 1923, to June 30, 1924, by ports of entry*

[Figures indicate a combination of crates, cases, boxes, packages, casks, bags, and bundles, unless otherwise designated]

Kind	Port and amount	Total
Apricots	New York, 1	1.
Artichokes	New York, 49	49.
Asparagus	New York, 795; El Paso, 5 pounds	795 and 5 pounds
Avocados	New York, 6,008	6,008.
Ayales	Nogales, 2	2.
Bananas, bunches	Baltimore, 1,557,700; Boston, 1,336,255; Galveston, 420,845; Key West, 16,474, Miami, 35,218; Mobile, 1,702,000; New Orleans, 12,447,359; New York, 9,055,128; Norfolk, 43,673; Philadelphia, 2,772,290; Tampa, 9,736; Eagle Pass, 293; El Paso, 1,389; Laredo, 695; Los Angeles, 18,993; Nogales, 1,568; San Francisco, 300.	29,419,856.
Beans:		
Fava	New York, 3,576	3,576.
Lima	El Paso, 69 pounds; Key West, 26; New Orleans, 160; New York, 48,068; Nogales, 2.	48,256 and 69 pounds.
String	Eagle Pass, 40 pounds; El Paso, 1,936 pounds; Key West, 25; Laredo, 240 pounds; New Orleans, 6; New York, 125; Nogales, 889 and 4,578 pounds.	1,045 and 6,794 pounds.
Beets	Eagle Pass, 480 pounds; El Paso, 59,679 pounds; New York, 28,241; Nogales, 1,502 pounds.	28,241 and 61,661 pounds
Burdock	Seattle 14	14.
Cabbage	Eagle Pass, 142 pounds; El Paso, 60 pounds; Laredo, 1,160; New Orleans, 260; New York, 50,267; Nogales, 664 and 2,180 pounds.	51,191 and 3,542 pounds.
Carrots	Eagle Pass, 638 pounds; El Paso, 115,919 pounds; New York, 190,596; Nogales 2 and 1,758 pounds.	190,598 and 118,315 pounds.
Cassava	Key West, 225; New York, 1,077; Tampa, 45	1,347.
Cauliflower	New York, 197; Nogales, 85	282.
Celery	El Paso, 436 pounds; New York, 32,903; Nogales, 4 and 19 pounds.	32,907 and 455 pounds.
Chayotes	El Paso, 1,703 pounds; Key West, 1; New Orleans, 170; New York, 331; Tampa, 4.	506 and 1,703 pounds.
Cherries	New York, 1,647	1,647.
Cipolline	Boston, 204; New York, 28,016; Philadelphia, 2	28,222.
Crosnes	New York, 432	432.
Cucumbers	Key West, 274; New York, 3,376; Nogales, 15,785 and 1,255 pounds.	19,435 and 1,255 pounds.
Dasheens	Boston, 63 and 1,650 pounds; Calexico, 88; Key West, 253; Los Angeles, 270; New York, 1,474; Portland, Oreg., 12; Providence, 742; San Francisco, 6,073; Seattle, 1,656; Tampa, 347.	10,978 and 1,650 pounds.
Eggplants	Key West, 664; Los Angeles, 2; New Orleans, 7,762; New York, 73,586; Nogales, 8,931 and 223 pounds.	90,945 and 223 pounds.
Endives	New York, 57,147	57,147.
Fennel	New York, 296	296.
Garbanzos, pounds	El Paso, 10	10.
Garlic	Boston, 835; Eagle Pass, 60 pounds; El Paso, 25,059 pounds; Laredo, 911 and 1,905 pounds; New Orleans, 1,076; New York, 6,261; Nogales 386 and 634 pounds; Philadelphia, 795.	10,264 and 27,658 pounds.
Ginger (crude)	Boston, 28; Los Angeles, 26; New York, 377; Portland, Oreg., 3; San Francisco, 2,218; Seattle, 245.	2,897.

TABLE 16.—*Fruits and vegetables imported under quarantine 56, exclusive of Canada, November 1, 1923, to June 30, 1924, by ports of entry*—Continued

Kind	Port and amount	Total
Grapes [1]	Baltimore, 1,410; Boston, 110,884; New York, 510,175; Philadelphia, 4,736; Seattle, 44.	627,249.
Grapefruit	Boston, 92; New York, 29,271; Philadelphia, 2	29,365.
Horseradish	Boston, 720; New York, 23,224; Philadelphia, 768	24,712.
Kale	New York, 8,671	8,671.
Kohl-rabi	New York, 17	17.
Kudzu	Boston, 56; Los Angeles, 63; New York, 296; San Francisco, 455; Seattle, 119.	989.
Lemons	Boston, 4,381; Laredo, 110 pounds; New Orleans, 79,644; New York, 334,142; Nogales, 897 and 4 pounds; Philadelphia, 756; Providence, 101.	419,921 and 114 pounds.
Lettuce	Eagle Pass, 270 pounds; El Paso, 18,973 pounds; New York, 4,388; Nogales, 183 and 6,113 pounds.	4,571 and 25,356 pounds.
Lily bulbs (edible)	Boston, 26; Los Angeles, 1; New York, 136; San Francisco, 118; Seattle, 37.	318.
Limes (sour)	Brownsville, 50; Eagle Pass, 95; El Paso, 14,721 pounds; Laredo, 1,900 and 261,256 pounds; Los Angeles, 803; New Orleans, 1,286; New York, 18,423; Nogales, 210 and 776 pounds; San Francisco, 401.	23,168 and 276,753 pounds.
Melons	Brownsville, 500; New York, 13,077; Nogales, 138,868 and 2,290 pounds.	151,945 and 2,790 pounds.
Mint	El Paso, 1,741 pounds; New York, 236	236 and 1,741 pounds.
Mustard	El Paso, 1,263 pounds; New York, 6	6 and 1,263 pounds.
Nectarines	New York, 81	81.
Okra	Key West, 108; New Orleans, 5,376; New York, 5,719; Philadelphia, 3; Tampa, 21.	11,227.
Onions	Boston, 44,393; Brownsville, 515; Eagle Pass, 4 pounds; El Paso, 151,217 pounds; Laredo, 4,923 and 570 pounds; Los Angeles, 132; New York, 632,569; Nogales, 25,094 and 58,297 pounds; Philadelphia, 200; Portland, Me., 350; San Francisco, 435; Seattle, 1,501.	710,112 and 210,088 pounds.
Oranges	New York, 3,677; Philadelphia, 2	3,679.
Pachyrhizus	San Francisco, 257	257.
Parsley	El Paso, 9,258 pounds; New York, 56,459; Nogales, 5	56,464 and 9,258 pounds.
Parsnips	New York, 1,997	1,997.
Peaches	New York, 10,761	10,761.
Pears	New York, 519	519.
Peas	Eagle Pass, 6 pounds; El Paso, 996 pounds; Laredo, 150 pounds; New York, 41; Nogales, 35,228 and 565 pounds.	35,269 and 1,717 pounds.
Pepper	Del Rio, 18; Eagle Pass, 473 and 1,545 pounds; El Paso, 261,071; Key West, 12,747; Laredo, 111 and 17,118 pounds; Los Angeles, 32; New Orleans, 1,185; New York, 143,320; Nogales, 72,885 and 1,020 pounds; Philadelphia, 2; San Francisco, 29.	230,802 and 280,754 pounds.
Pineapples	Baltimore, 174,018; Boston, 12,204; Detroit, 900; El Paso, 15 pounds; Key West, 749,951; Laredo, 534 pounds; Los Angeles, 28; New Orleans, 55,973; New York, 290,772; Nogales, 50 and 16 pounds; Philadelphia, 2; Providence, 2; Tampa, 3,542.	1,287,442 and 565 pounds.
Plantains, bunches	Boston, 6; Key West, 35,000; Miami, 1,250; New Orleans, 93,101; New York, 26,805; Tampa, 44,945.	201,107.
Plums	New York, 2,640	2,640.
Potatoes, barrels	New York, 32,804	32,804.
Pumpkins	Brownsville, 25; Eagle Pass, 107 pounds; El Paso, 50 pounds; Key West, 54; New York, 3; Nogales, 710; Tampa, 44.	836 and 157 pounds.
Quince	New York, 50	50.
Radishes, pounds	Eagle Pass, 1; El Paso, 8,578; Nogales, 672	9,251.
Romaine	New York, 6	6.
Shallots	New York, 19	19.
Sorrel	New York, 37	37.
Spinach	Eagle Pass, 15 pounds; El Paso, 31,707 pounds; New York, 44; Nogales, 1 and 1,359 pounds.	45 and 33,081 pounds.
Squash	Eagle Pass, 15 pounds; El Paso, 5,839 pounds; Key West, 23; New York, 3,037; Nogales, 406 and 2,420 pounds.	3,466 and 8,274 pounds.
Strawberries	El Paso, 145 pounds; Nogales, 45 and 137 pounds	45 and 282 pounds.
Swiss chard	New York, 6	6.
Tamarinds, pounds	El Paso, 140; New York, 452	592.
Tangerines	New York, 1,337	1,337.
Thyme	New York, 2	2.
Tomatoes	Del Rio, 11; Eagle Pass, 44 and 675 pounds; El Paso, 61,889 pounds; Key West, 53,522; Laredo, 1,000 and 37,293 pounds; Los Angeles, 17,610; Miami, 48,645; New Orleans, 37,506; New York, 164,343; Nogales, 1,579,206 and 4,582 pounds; San Diego, 1,700; San Francisco, 21,441.	1,925,028 and 104,439 pounds.
Turnips	El Paso, 56,747 pounds; New York, 859; Nogales, 5 and 356 pounds.	864 and 57,103 pounds.
Water chestnuts	Boston, 294; Los Angeles, 255; Milwaukee, 50; New York, 3,192; Philadelphia, 20; San Francisco, 4,581; Seattle, 1,598.	9,990.
Water cress	Nogales, 2	2.

[1] Includes Vinifera, hothouse, processed, and unclassified grapes.

TABLE 16.—*Fruits and vegetables imported under quarantine 56, exclusive of Canada, November 1, 1923, to June 30, 1924, by ports of entry*—Continued

Kind	Port and amount	Total
Water lily roots	Boston, 25; New York, 206; San Francisco, 1,267; Seattle, 308	1,806.
Watermelons	Brownsville, 58,394 pounds; Eagle Pass, 50 pounds; New York, 839; Nogales, 535,906 pounds.	839 and 594,350 pounds.
Entered for immediate export.		
Garlic	New York, 25	25.
Ginger (crude)	San Francisco, 6	6.
Grapes, barrels	Boston, 773; New York, 1,823	2,596.
Grapefruit	New York, 65,158	65,158.
Kudzu	San Francisco, 3	3.
Lemons	New York, 59,811	59,811.
Lily bulbs (edible).	San Francisco, 1	1.
Onions	Boston, 8,800; New York, 42,058; Nogales, 645	51,503.
Oranges	New York, 260	260.
Pepper	Nogales, 384	384.
Pineapples	Key West, 1,850; New York, 11,738	13,588.
Tomatoes	Nogales, 150,735	150,735
Water chestnuts	San Francisco, 1	1.

IMPORTATIONS OF BROOMS AND BROOMCORN

During the fiscal year 1924 there was a marked falling off in the importation of broomcorn and brooms, as compared with the fiscal year 1923. Table 17 indicates the quantities of each imported and the countries of origin.

TABLE 17.—*Importations of brooms and broomcorn, 1923–1924*

Country of origin	Broomcorn	Brooms
Argentina	330 bales	
Austria		1 package.
Greece		1 bale.
Hungary		10 cases.
Italy	1,797 bales 2 packages	287 cases. 1,409 bales. 2 packages.
Mexico	378 bales	39 bales.
Total	2,505 bales 2 packages [1]	1,449 bales.[2] 297 cases. 3 packages.[1]

[1] These packages contained samples.
[2] Includes 39 bales shipped in bond through the United States for reentry into Mexico.

IMPORTATIONS OF OTHER RESTRICTED PLANT PRODUCTS

In addition to the foregoing record of plants and plant products the board has supervised the importation under quarantine of 11,797 sacks and 27 samples of paddy rice imported through Nogales, Ariz. In addition 1,626 additional sacks passed through that port in bond to Canada. Under quarantine 42, 198 sacks of shelled corn from Mexico were entered and sterilized at, San Francisco, and under quarantine 39, 296 bags and two small packages of wheat and 35 bags of rye were entered. In addition, a package containing small samples of wheat and oats was imported. Sterilization was effected in each case. Cuban potatoes amounting to 4,837 crates were imported at Key West and New York, and Mexican potatoes were admitted through the ports of Douglas and Nogales, Ariz.

TERMINAL INSPECTION OF MAIL SHIPMENTS OF PLANTS AND PLANT PRODUCTS

During the fiscal year 1924 the States of Georgia and Idaho inaugurated terminal inspection of mail shipments of plants and plant products under the authority of the act of March 4, 1915. The terminal inspection points in Hawaii, Utah, California, Mississippi, and Oregon were revised. California, Arizona, Montana, Florida, Washington, Arkansas, the District of Columbia, Mississippi, the Territory of Hawaii, Utah, and Oregon had previously, in the order named, availed themselves of the provisions of the act referred to. Such terminal inspection is carried out entirely at the expense of the States concerned and is proving of great value to the board in the enforcement of its domestic quarantines. This is especially the case with our quarantines on account of the white-pine blister rust.

NEW AND REVISED PLANT QUARANTINES

The following quarantines and other restrictive orders have been either promulgated or revised during the fiscal year:

DOMESTIC QUARANTINES

The European corn-borer quarantine, amended September 27, 1923, and revised April 23, 1924; the gipsy moth and brown-tail moth quarantine, amended August 21, 1923, and revised June 12, 1924; the pink-bollworm quarantine, amended October 8, 1923, January 17, 1924, and April 5, 1924; the Japanese-beetle quarantine, revised November 17, 1923, and April 9, 1924; and the satin-moth quarantine, amended November 7, 1923.

FOREIGN QUARANTINES

The European corn-borer quarantine, amended August 4, 1923, and November 30, 1923; the seed or paddy-rice quarantine, promulgated July 17, 1923; the fruit and vegetable quarantine, promulgated August 1, 1923, and amended October 23, 1923, and January 18, 1924; the nursery stock, plant, and seed quarantine, amended June 30, 1924; and the Canadian Christmas-tree quarantine, promulgated June 30, 1924.

OTHER RESTRICTIVE ORDERS

Regulations governing the importation of cotton and cotton wrappings into the United States, amended April 30, 1924.

CONVICTIONS FOR VIOLATIONS OF THE PLANT QUARANTINE ACT

The solicitor of the department reported during the year 56 convictions for violations of the plant quarantine act. Of these, 41 had relation to the white-pine blister rust quarantine, 3 to the Japanese-beetle quarantine, 6 to the European corn-borer quarantine, 2 to the Mediterranean fruit-fly and melon-fly quarantine, and 1 each to the gipsy moth and brown-tail moth quarantine, the sweet-potato and yam quarantine, the Mexican fruit-fly quarantine, and the nursery stock, plant, and seed quarantine. Fines aggregating $1,463.20 and costs were imposed.

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